Clinical Lecture
ON
PREGNANCY NEPHRITIS.

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GENTLEMEN,—I am about to direct your attention to a form of disease which is certainly rare, and of which too few examples pass under our notice in a general hospital. Medical men sometimes practise for years without seeing a case of pregnancy nephritis; and when they do encounter one, find how little formulated their ideas are on the subject, and how unprepared they are to give a prognosis or treat it properly, or offer a reasonable explanation of the evident close causal connexion that exists between pregnancy and renal disease. Let me say a few words in preface about the malady. It assails women previously healthy in sequence to their becoming pregnant, begins insidiously without fever or pain, and proceeds to some grave symptom—rapid general dropsy, sudden convulsion, uræmia, or cerebral disturbance—before the patient is aware that anything serious is the matter with her. Mere albumen in the urine of a pregnant woman does not necessarily signify pregnancy nephritis. Abeille[1] found albumen in 1 out of every 10 pregnant women. Van Arsdale and Elliott[2] found it in 1 in 56, a proportion which appears to me more reasonable. Dr. Roberts, uniting the statistics of Blot, Meyer, Devilliers, and Regnauld together, infers the liability of pregnant women with albuminous urine to eclampsia to be about 1 in 4. The eclampsia is usually not expected, although precursory symptoms, such as headache, vomiting, delirium, and clouded intelligence, are noticed in several recorded cases. As to the time of occurrence of the convulsions, which is the most dangerous of the uræmic manifestations, various valuable statistics have been collected. Thus, the nearer to its natural term the pregnancy is conducted, the more likely, in these albuminous cases, is eclampsia to supervene. The subjects of pregnancy nephritis who are prematurely confined most probably escape the eclamptic complication. There are valuable figures collected by Von Wieger, who tabulated 455 cases showing that the convulsions preceded the commencement of labour in 109 instances, attended the act of parturition in 236, and followed its completion in 110. Now to our case.

Annie B——, aged twenty-three, a domestic servant, was admitted into Faith ward for general dropsy, February, 1882. Her face, legs, abdominal walls, and skin everywhere were extremely anasarcous. The eyelids were so swollen that she could scarcely look through them; her abdominal cavity also contained ascitic fluid, but besides this she was obviously pregnant as well, although she stoutly denied the imputation of it, for we were able to count distinctly the sounds of the fœtal heart and feel the outlines of a child in utero. The catamenia had been absent for six months. There was evidence also of some hydrothorax on both sides, the fluid being largest in amount on the right side; the heart sounds were loud and clear.

History.—She had had scarlet fever at fourteen; otherwise perfectly good health. She told us her present illness began by swelling of the legs, which she first noticed three weeks ago, and was succeeded by cough and shortness of breath, her chief complaint on admission.

State on admission.—Besides her general anasarca and dropsy, her countenance was dusky, her lips somewhat livid, and her mental condition was very apathetic and drowsy. She was rational, but not reliable in her answers. Her pulse was 72; respiration 28; temperature 98·4°; tongue furred and bluish; appetite bad; bowels open, solid action; urine scanty, sp. gr. 1028, high coloured, and containing one-quarter its volume of albumen. Her sight, she informed us, was bad, and had been failing for a week, not longer, and certainly was worse the day after her admission, for she then groped about for objects on her locker like a person nearly blind.

The diagnosis, so far as pregnancy nephritis was concerned, was not difficult. But what form of pregnancy nephritis was here, for all are not alike, either in their symptoms, their course, or their issue? and towards prognosis, the distinction which experience has taught me to draw between them severally is, in my opinion, very important. 1. There is eclampsia parturientium, a series of epileptic convulsions concurring with the act of parturition, and coinciding with highly albuminous scanty urine, or with anuria (total defect of urine), preceded by no well-defined or usually noticed symptoms of renal disease, for neither slight nor severe anasarca of the legs attending the later months of pregnancy can be accepted as incriminating evidence of prior or primary renal disease. 2. There is chronic Bright's disease, chronic insidious parenchymatous diffuse nephritis, complicated by pregnancy, quickened and rendered more imminently dangerous by uræmic symptoms, or local inflammatory complications, *pari passu*, with each week of advancing pregnancy. 3. There is pregnancy nephritis proper, a cortical glandular nephritis, an acute change in the nutrition of the renal epithelium, which commences sometimes as early as the third month of pregnancy, but more often in the sixth, and is attended by diminished urination, albuminuria, anasarca of face and limbs, retinal symptoms, uræmic symptoms, vomiting, neuralgia, lung œdema, asthma, mental perturbation phenomena, convulsions, and sometimes death; but is usually suddenly terminated by premature delivery and subsequent profuse diuresis, and complete recovery. Now, our case proved to be of this last kind, and this is the form of which I have had most personal experience.

To return to our case. Mr. Barnes, my house-physician, instituted a careful examination of the eyes. He found the fundus of the right eye extremely hazy. The disc, except for a very pale ring at its periphery, was nearly of the same pink colour as the surrounding fundus. The margin of the papilla was swollen, and the retinal veins somewhat large; but no hæmorrhages or retinal effusions were observed. Left eye: The disc was swollen, red, and indistinct, but better defined than that of the right eye; the veins of the fundus were enlarged; a dark spot of hæmorrhage was apparent on the outer side of the large descending vein. The patient took fluid nourishment well. She was examined by Dr. Matthews Duncan, who advised gentle purgation, and, if eclamptic symptoms supervened, the induction of premature labour. The fifth day after her admission, meantime making no complaint of labour pains, the patient asked for a bedpan, and told the nurse that she would find something in it—in fact, a dead fœtus, to which she had given birth. This was on Feb. 14th. The after-birth came away naturally. The patient lost very little blood; but, in consequence probably of the labour-pains and straining, there was slight hæmorrhage in each upper eyelid, and the conjunctivæ were very œdematous, and both eyes very painful and hypersensitive to light. The temperature was never elevated, the lochial discharge established itself, the general œdema rapidly subsided, her face and legs were obviously less swollen the second day after her delivery, and she passed at least two pints of urine; specific gravity 1025, still containing a quarter of its volume of albumen. She complained of frontal headache and of her eyes, and her sight was so bad that she could only uncertainly count fingers held up between her and the light. The patient took nourishment well, and the only medicine ordered was effervescing tartrate of soda.

Feb. 17th:	Passed	86 oz.	of urine.				
18th	,,	120 oz.	,,	sp. gr.	1020;	album.	¼
19th	,,	120 oz.	,,	,,	1012	,,	0
20th	,,	110 oz.	,,	,,	1012	,,	0
21st	,,	104 oz.	,,	,,	1015	,,	traces
22nd	,,	124 oz.	,,	,,	1015	,,	traces
23rd	,,	132 oz.	,,	,,	1013	,,	traces
24th	,,	100 oz.	,,	,,	1017	,,	nil

On the 18th the note says: Slept well, still headache, tongue clean; pulse 100; respiration 36; temperature 98°. Sight no better. Patch of white effusion on apparent inner side of right disc, which is still red and swollen. Extensive detachment of lower half of right retina in the form of three large cusps. Left eye: Retina red and swollen as before labour, but two hæmorrhagic effusions now visible. On the 28th the sight of both eyes was obviously improved; that of the left was fairly good; right still much impaired.

On March 6th we obtained another ophthalmoscopic examination of her eyes, when, to my surprise, no trace of the previously detached half of the right retina could be discovered; there was intense swelling of the disc with blurring

[1] Traité des Maladies Albumineuses. Paris, 1863.
[2] New York Journal of Medicine.

of its edge; the whole fundus was cloudy and indistinct in its deeper layers, and several patches of effusion here and there surrounding, and also surrounded by, spots of pigmentation, could be seen. The seat of previous detachment and bulging of the retina was the part where most pigmentation was apparent.

From Feb. 24th she ate a mutton chop daily, and took a good milk dietary and custard pudding. The lochial discharge ceased early. All albumen had disappeared from the urine within a week after her delivery. She took a steel mixture during her convalescence, and was discharged quite well and with no complaint about her sight, and able to read the print of the daily papers, on March 15th.

Apart from its interest as a case of pregnancy nephritis, this woman's record shows how completely acute retino-choroiditis and partial detachment of a large portion of a retina may be recovered from. *Desinit causa tollitur effectus.* Unfortunately, in other forms of Bright's disease, while we encounter the same retinal complication, we seldom find a similar capacity of recovery.

So early as 1840, Rayer (vol. ii., p. 399) called attention to pregnancy nephritis, described its principal symptoms, and noticed the tendency of the mother to die of convulsions, and of the fœtus to be born prematurely and dead. Lever, in Guy's Hospital Reports, 1843, observed that the urine of nine out of ten parturient women who had convulsions was albuminous. Frerichs, in 1851, first attributed the eclampsia parturientium to uræmic intoxication; and from that time to the present few forms of renal disease have been more written about; the symptoms being calculated to attract attention, a large proportion of the eclamptic cases dying, and a fair proportion of those who survived the act of parturition a week recovering.

In a clinical lecture it would be impossible for me to do justice to the various speculations that have been ventured on the etiology of the nephritis. Many accoucheurs still attribute it to mechanical pressure, notwithstanding Bartels' arguments to the contrary. That the enlarging uterus should press upon the renal veins is scarcely intelligible; that it might press upon the neck of the bladder and increase the urine pressure on the ureters, the pelvis of the kidney, and the tubuli uriniferi, is far from unreasonable however. In favour of mere mechanical pressure as its cause are the established statistical facts:—(1) That this nephritis happens mainly, if not only, in the latter months of pregnancy; (2) that it affects primiparæ principally; (3) that it complicates twin rather than single pregnancy; and (4) that the anasarca and albuminuria subside rapidly after parturition. I can only mention, not discuss, here the primary impurity of the blood theory, Bartels' urea excess, Gubler's albumen excess, leukæmia and hydræmia—all incident to pregnancy; Peter's overworked kidney theory, and the still more recent vaso-motor spasm of the renal arteries theory,—these may do duty to explain some particular cases of eclampsia; they will not explain all the urinary symptoms of pregnancy nephritis, or the pathological changes most commonly found in the kidneys of those who die.

From Leyden and Wagner I give you the ordinary morbid changes which are found in the kidneys of typical pregnancy nephritis (Wagner, "Morbus Brightii," p. 196). The kidneys are to naked-eye inspection little altered, slightly enlarged, rather bloodless than blood gorged, a little soft to feel, and a little yellowish coloured. Under the microscope, the tubuli are observed a little dilated, their epithelium swollen, and either finely granular from fat or albumen, completely filling up some of the canals of the tubules. Only a few casts are seen *in situ* in the tubules. The glomeruli are mostly bloodless, the capsular epithelium is in some detached, in others there is a half-moon of albuminous material between the capillary tuft and capsule. The stroma of the kidney is normal or œdematous. In a few cases (Virchow and Bartels are agreed on their extreme rarity) the ordinary appearances of hæmorrhagic nephritis have been found, and Litzman observed several times recent changes like those described above welded evidently upon kidneys which presented characteristic evidence of old chronic diffuse renal disease.[3] The following case, taken from an article by Leyden, confirms the pathological accuracy of the description above given from Wagner:—

A. J——, aged twenty-eight, a previously perfectly healthy woman, passed through a normal gestation in a first pregnancy up to the seventh month, when she noticed that she required to urinate unusually frequently. Shortly afterwards her ankles began to swell, and the dropsy rapidly extended to her legs, genitalia, and back. She complained of the weight of her legs and shortness of her breath. Temperature 36·5° C.; pulse 72, regular, of moderate high tension; heart and lungs normal; urine 1000 cc. per diem, sp. gr. 1035, thick, coffee-coloured, presenting moderate sediment, but containing much albumen. The sediment contained no red cells; some white ones, free fatty renal epithelium, and hyaline casts. About a fortnight later labour came on suddenly, the swollen labia suffered some laceration; rigors occurred the day after, septicæmia and death on the sixth day.

Post-mortem Examination.—(The state of the kidneys alone need our attention). Left kidney: Swollen surface of grey-yellowish colour, slightly œdematous; veins full; section anæmic; substance doughy; medullary portions, especially the ends of the cones, pale. Right kidney similar, but rather more fatty-looking, doughy, enlarged; its pelvis and ureter obviously dilated. The microscope demonstrated some casts *in situ*; fatty infiltration of renal epithelium; no alteration of vessels or glomeruli; no nuclear proliferations, but here and there a few groups (foci) of micrococci in the stroma (patient died of septicæmia) between the straight tubes of the pyramids. The writer says that these appearances differ *in toto* from scarlatinal nephritis; there is no venous hyperæmia, rather arterial anæmia, and secondary to it fatty necrosis of renal epithelium.

A point I wish to insist on, even if my own case has not illustrated it enough, is that the kidney in true pregnancy nephritis does not suffer any irreparable injury; that its disturbance is mainly functional at first; that less urinary water is secreted; and that what is secreted is of high specific gravity, high colour, but affording little sediment, and seldom blood; that later on the evidence is forthcoming of nutritional failure in the renal cells. The most characteristic features of the malady agree entirely with my daily clinical experience of ordinary acute parenchymatous nephritis—scanty high-coloured urine, with little sediment, but having a large percentage amount of albumen. As the case goes on from first appearance of dropsy and albuminuria, both these steadily increase, until convulsions, or premature parturition, or both these together, ensue. The rapidity with which the dropsy disappears and the urine becomes normal again after parturition, was noticed years ago by Regnauld and Devilliers, who recorded a case in which all albumen had disappeared fourteen days after delivery. In our own case six days after delivery the woman's urine contained not a trace; and although for three weeks longer we were able to find a trace usually, yet this was of small pathological importance, far too little to signify much. She was passing a healthy amount of urine and of urea, and no albumen in her discharge. *De futuris non est predicandum.* The prognosis for her is good, unless she becomes pregnant again, when the same nephritis is apt to repeat itself. Further experience teaches us that while with each succeeding pregnancy dropsy, albuminuria, and uræmic complications recur, the woman becomes more tolerant of her fœtus, the nephritis is continued for a longer time, and the damage to the kidney is more extensive and more apt to pass on to chronic nephritis when delivery is over. Indeed, I can record one case in a relation of my own, who suffered pregnancy nephritis with three successive pregnancies. The first fœtus was born somewhere short of the sixth month, but had been dead six weeks at least; the second was born in the seventh month dead; the last was carried to term, born alive, and is now alive. Between the first two pregnancies all albumen disappeared from her urine; after her last pregnancy and delivery albumen remained persistent until her death by uræmia.

Advice upon treatment.—Distinguish between the three varieties of pregnancy nephritis already noticed. Eclampsia parturientium with albuminous urine, but without notable dropsy, is relieved by chloroform, chloral, amyl nitrite, nitro-glycerine, bloodletting, warm baths, by all those things which relieve spasm, by completed delivery. Chronic Bright's disease, complicated by pregnancy, is best treated upon the ordinary plan for Bright's disease, and its several accidents, by hot baths, warmth, careful dietary, gentle purgation. True pregnancy nephritis demands the induction of premature labour, the earlier the better, and requires that the medical man should plainly inform his patient of the risks to life entailed by any future pregnancy. The dropsy may also require relief by draining with fine cannulas, to avoid the risks of laceration of the genitalia and invitation of septicæmia.

[3] Deutsche Klinik, 1855, Nos. 29 and 30.

ABSTRACT OF

Lettsomian Lectures

ON THE

TREATMENT OF SOME OF THE FORMS OF VALVULAR DISEASE OF THE HEART.

Delivered at the Medical Society of London, Jan. 8th, 1883,

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LECTURE I.

ENDOCARDITIS.

IN this course of lectures my plan will be to enunciate very briefly the bases on which I believe our therapeutics ought to rest. These are, in my opinion: (1) The teachings of morbid anatomy; (2) clinical observation of disease processes and their correlations. Then I propose to review (3) the lesson of the past as to treatment; and (4) to adduce towards the elucidation of the various problems the arguments from analogy afforded by experimental investigation—a mode of inquiry rendered difficult, alas! by the stumbling-blocks which a false sentimentalism has placed in our way.

First, then, I will consider the teaching of morbid anatomy as to lesions of the valves of the heart. You will understand that I shall do this very briefly, for my object is merely to note them in so far as they may afford a guide to treatment, and when I speak apparently dogmatically, I do not make an assertion *ex cathedrâ*, but in the spirit of an inquirer after truth.

We will first consider the disease which most commonly affects the valvular apparatus of the heart and the adjacent endocardium — the disease known as *endocarditis*. In briefly reviewing its morbid anatomy, much will remain unsaid, but I shall treat it first from the standpoint of mere observation, leaving all speculative questions. I would classify the first changes in the endocardium which I shall notice as *exudative*. The curtains or cusps of the valves may be seen to be slightly swollen, and the endocardium to contrast by its dulness with the healthy portions adjacent. But the changes are most noticeable at the free edges of the valves, where may be seen isolated or agglomerated bead-like processes. Upon such processes may be observed sometimes little caps of fibrin. A thin section of a valve thus affected is seen under the microscope to differ from healthy valve structure in that its cellular elements are more numerous, and, especially towards the free edge, are closely aggregated. I wish to insist on the fact that in a valve so affected even the portions which seem to the naked eye unaffected are really infiltrated with cells; only the aggregation is greater at the free edge, where such caps of fibrin are often found attached. The beadlike eminences observed by the naked eye are, according to my view, indications of a more widely-spread inflammatory change in the valve than might be at first suspected.

The second form of endocarditis, or properly-speaking valvulitis, to which I shall call attention, is that which I would term the *sclerous*, or fibrotic form. Here the valve, and it is the mitral which is affected in by far the greatest frequency, is thickened, but the thickening is not due to swelling of the soft tissue. It is felt to be hard and firm. The endocardium of the auricle, near the other valve, is found to be dense and white. The valve-curtains, and often the cords and fleshy columns, are more or less rigid. A patch of the endocardium lining the left ventricle, and leading up towards the aortic cusps, is sometimes also found white and thick, and the aortic valves themselves may be seen to have undergone similar changes. In this form microscopic section shows that there is a gradual fibrous transformation of the neoplasm resulting in the production of a quasi-cicatricial tissue.

A third form of endocarditis which I think of practical importance to distinguish is that which is *secondary to endarteritis* (atheroma). In this form it is the aortic valves which are affected in a large majority of instances. Patches of soft flabby swelling may be seen in the lining membrane of the aorta, close to the aortic cusps, involving them in the change, and, perhaps, causing the inversion of one or more; or yellowish patches may be observed, in some cases covered by a soft pulpy material, the blood, perhaps, forcing its way at some softened spot between or within the arterial coats; or the root of the aorta may be hard and thick, the thickening being of cartilaginous consistence, and in such thickening the cusps of the valve may be involved; or in like situation, and with like deformity of valves, there may be a bony or stony hardness, a calcareous change. The evidence obtained by microscopic investigation is to the effect that in the swollen soft patches are abundant exudation cells with a byaline or slightly fibrillar matrix. These occur mostly as swellings of the internal coat, but Dr. Wilks has observed them in all the coats of the vessel. The yellow patches show fat granules and cholesterine crystals. There is evidently a fatty degeneration of the inflammatory neoplasm. In the fibrous or semi-cartilaginous variety there is more fibrillation and fewer cells, and in the hard and bony form there is a deposit of earthy salts in the interstices of the fibrous tissue.

The fourth form of endocarditis to which I shall call attention is that termed *ulcerative endocarditis*. Swollen and dull portions of the endocardium of the valve may be seen to present here and there a yellowish or greyish discolouration, and to be covered by a finely granular débris. The superficial endocardium in such situations has become necrosed. Through such breach blood may find its way, and, spreading between the layers constituting the valve, may form an aneurism thereof; or the ulceration extending through both layers the valve may be perforated. More commonly a considerable portion of the valve is eroded, and upon the eroded surface fibrine is deposited in the form of single or multiple vegetations. The finger readily detaches these vegetations, and the surface below them is found to be covered by a friable material.

Secondly, the rise and progress of endocarditis as evidenced by clinical observation. The fact which stands out pre-eminently in this connexion is the association with rheumatism, acute and subacute. Amongst English observers (Fuller, Sibson, Budd, Latham, and others), the figures approximate tolerably closely and indicate that in acute rheumatism endocarditis becomes manifest in one out of every two or three cases. Continental observers, however, record a less proclivity, the figures of Bamberger, Lebert, Wunderlich, and Roth showing a proportion of one in five to eight cases. The statistics collated for me by Dr. Gabbett from the records of the London Hospital show that in 1880 113 cases of valvular complications were noted in 244 cases of rheumatic fever—a proportion of 46·3 per cent., and in 1881 170 in 295, or 60·6 per cent. The increasing proclivity to valvular complications with repeated attacks of rheumatic fever is well shown.

The first sign by which endocarditis is rendered probable is in my opinion a prolongation of the first sound of the heart, which may afterwards develop into a distinct systolic murmur. Such murmur is, however, not absolutely pathognomonic, for it may be due to regurgitation from adynamia of the left ventricle. Such modification is commonly heard directly the patient comes under observation. I have observed also as indicating signs reduplication of heart sounds, and in these cases a *presystolic* murmur subsequently develops. Rarely a diastolic aortic murmur is the declaratory sign. Endocarditis is by no means necessarily attended with pyrexia, nor even by any sign or symptom whatever referred to the heart.

I will now inquire concerning those cases of endocarditis which are not associated with a history of acute or subacute rheumatism. These may conveniently, for purposes of investigation, be divided into two classes: (1) those which are observed in early life, and (2) those which develop after maturity. In the latter class are the cases of gradual onset which involve the aortic orifice, and sometimes the mitral subsequently, which are traceable to sub-inflammatory changes at the root of the aorta, and degeneration afterwards. In these cases the endocarditis and valvulitis are consecutive; they have no necessary connexion with rheumatism, and their consideration may be conveniently deferred. The study of endocarditis as it occurs in the early periods of life is, I think, at the point at which our investigation has hitherto been advanced, a matter of very great importance. Almost every practitioner is familiar with the

fact that cases of disease of the valves present themselves which have shown evidence of such disease from many years, from very early periods of the life of the patient, and yet inquiry fails to elicit that the subject of such disease has ever suffered from rheumatism in any form. It is surely a matter of importance, therefore, that we should endeavour to learn how such disease originates in the period of childhood. In acute and subacute rheumatism in the child the proneness to endocarditis is greater than in the adult. Typical rheumatic fever is much less common in the child than in the adult; the articular manifestations are slighter, but I consider the morbility of the endocardium to be greater Of thirty-two cases of acute and subacute rheumatism occurring in children under twelve years of age admitted into the North-Eastern Hospital during the past three years, twenty, or 62 per cent., presented signs of endocardial affection. The development of endocarditis, however, in the child has not so close a relation with the other phenomena of rheumatic fever as in the adult. It may precede, or may succeed even after long periods, the attack.

But there are other diseases besides rheumatism in the child with which endocarditis stands in close relation. These are chiefly scarlatina and measles. In relation with scarlatina endocarditis may occur either with or without the intervention of articular symptoms. Post-scarlatinal rheumatism is well known, and bears a close similarity to ordinary rheumatic fever; associated endocarditis is, therefore, rendered probable. But I have shown from recorded cases that such endocarditis may become manifest after scarlatina, not only without the intervention of articular phenomena, but long after the period of fever has passed, and during a time when there is no elevation of the temperature of the body, no pyrexia whatever.[1]

Again, there is evident proof that endocarditis can arise in close relation with *measles*. I have recorded a case in which both pericarditis and endocarditis occurred a fortnight after the commencement of convalescence from measles. At this time a perilous attack of chorea developed. There was here no obvious manifestation of rheumatism nor hereditary tendency thereto. It appears to me that the influence of measles in predisposing to endocarditis has been much underrated, and *a fortiori* the frequent sequence of these diseases as observed in children becomes an agency, and that, as I think, very probable, not only to the production of the endocardial disease, but to acute rheumatism itself.

Excluding these causes, there yet remains a considerable minority of cases of endocarditis in children in whom no traceable disease has led up to the valve deterioration. The condition is only betrayed by various morbid conditions, the results or concomitants of the valvular disease. I have noted twenty-seven of such cases. They have been marked by (*a*) disorders of the nervous system: hemiplegia, hemianæsthesia, epilepsy, chorea; (*b*) disorders of nutrition: wasting, anæmia, &c.; (*c*) disorders of respiration or circulation: cough, dyspnœa, or the usual phenomena of progressive cardiac failure. Sufficient is this evidence to prove, I think, that in the child endocarditis can arise and progress without special symptoms, without pyrexia, without the disturbing influence of any acute disease.

As regards the *pathogenesis* of rheumatic endocarditis, I do not think the evidence at all justifies the conclusion, that its first cause is extrinsic to the body or that it is of malarial origin and of the nature of an organised germ. On the other hand, there is much to prove that the "poison" is generated by a perverted metamorphosis, by retention of effete products in the blood. It is quite probable, I consider, that lactic acid is one, but not the only product capable of acting as the pathogenetic agent. Such agents may be many, between fibrin on the one hand and the excreted morbid acid on the other. It is not proven, but yet not improbable, that disturbance of a tract of the spinal cord—a postulated chemical coördinating centre—may be a mode in which the disorder can be originated and prolonged, as Dr. P. W. Latham has argued.

I must now approach another part of my subject and inquire concerning the efficacy of extant methods of treatment in regard to rheumatic endocarditis. It has been claimed of almost all methods of treatment of rheumatism that have been advocated, that they have been instrumental in controlling or preventing the cardiac complications of the disease. The individual experience of observers has been cited again and again to point the efficacy of this or that remedy or method in mitigating the chief danger of rheumatic fever. Yet proof of such vaunted efficacy has soon been found to be unsatisfactory, and it may be confidently asserted that no antidotal treatment is yet known—that we have, for instance, no drug which can influence endocarditis as quinine influences ague, or as mercury and iodide of potassium influence syphilis. The discussion so ably sustained in this Society during the last session, which has been fully reported, has put the claims of various forms of treatment of rheumatic fever to a numerical test. The results of treatment by rest and mint-water, by alkalies, by blistering, and by administration of salicin and its compounds were compared, and it is fair to assume that if any agent other than these had been efficient in the treatment of rheumatic fever or of endocarditis evidence would have made this apparent. The result of the discussion, which it is unnecessary to epitomise,[2] was to show a strong concurrence of testimony to the effect that the administration of salicin or the salicylates very decidedly reduced the suffering and the fever of rheumatism, but in no marked degree influence the development of endocarditis and other cardiac complications. *Primâ facie* this seems to be a strange conclusion, for one might imagine that an agent that reduced in such marked degree the pain and fever which must contribute to disturb the heart even if it had no decided effect upon the rheumatic process within the heart, would with great probability influence for good the inflammatory process in pericardium as well as endocardium. The conclusion is forced home, however, alike by individual experience, for we find that pericarditis and endocarditis are shown by physical signs to arise and progress in patients who are fully under the salicin treatment, and by statistical inquiry from large numbers of cases treated by the salicin compounds, compared with those treated in the pre-salicylic era, such as has been carefully followed out by Dr. Gilbart Smith.[3] Dr. Maclagan, to whom the profession and the public are indebted for the introduction of agents which have at any rate been proved to contribute to the comfort of suffering patients, himself allows that the hopes that they would ward off cardiac complications have not been realised. I consider that there are strong reasons why a mode of treatment which is efficacious in rheumatic fever is powerless as regards cardiac complications. To put the matter clinically or practically. We observe, let us assume, a patient in a first attack of rheumatic fever. He presents (1) a murmur indicating an endocardial complication. I think I must have convinced you that such endocarditis may have arisen not during the attack from which he is at present suffering, but from the disease acquired insidiously at any time previously. It is obvious that any remedy would fail to influence the cardiac complication in such a class of cases. Or (2) a modification of sounds, or actual systolic murmur, developing at the apex, makes us suspect the present rise and progress of endocardial inflammation. But such may had its commencement long before the advent of the other symptoms, for no sign will betray the gradual swelling of a valve. A swollen valve is not necessarily incompetent. On the other hand, a veritable systolic murmur at the apex is no conclusive proof of endocarditis, for it may be due to adynamia of cardiac muscle. Here, then, is a double source of fallacy in the statistics of the cardiac complications of rheumatism. Or (3) the patient manifesting no evidence of valvular impairment is, at the termination of his attack of rheumatic fever, discharged as free from cardiac disease. I do not think that such conclusion is to be justified. A valve may be inflamed and give no evidence of incompetence, the patient may be discharged and show no signs of cardiac trouble, but a slow process of shrinking or of sclerosis may be going on; and when the patient next presents himself there may be undoubted evidence of endocardial mischief. This is, I consider, by no means of infrequent occurrence; and this is one reason why a second attack of rheumatic fever is attended with such notable evidence of a highly increased ratio of cardiac complications.

For such reasons as these, I think it impossible—the sources of error being so numerous—that we can get from statistical inquiry satisfactory evidence as to the efficacy of different plans of treatment in warding off endocardial disease; and I dissent from those who hold that a remedy which is efficacious in the treatment of acute rheumatism ought to show, on numerical inquiry, a favourable influence on the correlated heart disease. I consider the treatment by salicin and the salicylates, even though no favourable results are manifest as regards cardiac complications, to be

[1] Lectures in Medical Times and Gazette, Oct. 25th, 1879, p. 472.

[2] THE LANCET, Dec. 17th, 24th, and 31st, 1881; Jan. 7th and 28th, 1882.

[3] Ibid., Jan. 28th, 1882, p. 155.

the most favourable to the patient of all forms of treatment hitherto known. In such cases it may be legitimately asked whether I adopt an altogether pessimist view of the treatment of endocarditis. Can nothing be done? My answer is, much; but it must be in the direction of *preventive treatment*. My own experience is strongly towards the conclusion that endocarditis is more prevalent, as well as more extensive and severe, among the poor than among the well-to-do. This question is one that might with advantage be put to the numerical test; we greatly want the evidence of the family practitioner to compare with that afforded by our hospital statistics. The predisposing causes to the advent of endocarditis, which as I have shown can arise without the intervention of obviously rheumatic phenomena, are most probably (1) exposure to vicissitudes of temperature, (2) and irregular and improper dietary. These are the impulses to a perverted nutrition, resulting in the retention within the blood of those excrementitious products which we may call "the rheumatic poison." Attention to the clothing and proper feeding of infants and children constitutes in my mind, therefore, the treatment of the first importance as regards endocarditis. There is no need nowadays to insist on the importance of preventive treatment as regards the zymotic diseases. This is well recognised. Is it not quite as important as regards the subtle disease we are considering? I would, whilst recognising the difficulties of such proceeding, strongly recommend the periodic medical examination of children, even though they present no obvious signs of disease.

Of no less importance is the treatment in regard to the zymotic diseases which are correlated with endocarditis—viz., scarlatina and measles. The subject of an attack of scarlatina should be watched with great care for long periods after convalescence. Moreover, the slightest sign of throat ailment, especially with children, should be looked upon with suspicion. I have no doubt whatever that in a large number of instances ulcerative tonsillitis of zymotic type occurs in children unnoticed and unknown, and that in many such a renal complication is instituted which is also neglected. The rise of endocarditis in such case is, as I have said, not during the period of fever. I do not recognise the influence of morbid germs in *directly* occasioning the inflammatory change in the valves. Such change is a consecutive and secondary effect. The teaching I would enforce, therefore, is that the subject of scarlatina, or of the allied forms of throat affection, should be watched, protected, dieted, and treated for periods much longer than is now usual. And as regards measles. There is, unfortunately, a widely-spread tendency to regard measles as a very slight ailment that requires little or no treatment. Experience tells, however, that it is not only the immediate precursor of broncho-pneumonia frequently, and heart disease occasionally, but that it effects a deleterious change upon the powers of nutrition, which lasts, as in the case of scarlatina, for long periods. The subsequent treatment, therefore, of the subjects of measles should, in my opinion, be much more protracted than it is at present. Such is an outline of what I consider the common-sense treatment of the first causes of endocarditis. During its rise and progress in an attack of rheumatism, I prefer the treatment by salicin or the salicylates in sufficient doses (usually twenty grains every four hours, till subsidence of the pain and pyrexia, and afterwards the same dose thrice or twice a day). From the evidence of Dr. Isambard Owen, there is a good case in favour of combining with this the administration of full doses of alkalies.[4] Vesication by the application of liq. vesicatorius in the left axilla, I think also of service.

It now only remains for me to allude to the clinical significance of *ulcerative endocarditis*, with regard to indications for treatment. It happens sometimes that this affection arises and runs its course with little or no evidence that the endocardium is impaired. Such cases often present a strong resemblance to typhoid fever. Here treatment is of no avail, the disease is uniformly fatal. By far the most frequently the disease is engrafted, as it were, on chronic disease of the valves. It appears to me that such cases can be divided into two classes, the infective and the non-infective. In the infective cases there are extraordinary disturbances of temperature, multiple emboli and septicæmic signs or even abscesses. It is in such that micrococci are discovered. They are, I believe, specific organisms, associated with some subtle zymotic influence or virus, as in the puerperal cases. It is not that the micrococci induce the endocarditis, but they complicate the already existing endocarditis by inducing necrosis of the diseased tissue. In other cases, though nearly all are characterised by embolism, the proof of infection, and, as I think, the probabilities thereof, are wanting. In a case lately under my care in the London Hospital there was no marked pyrexia whatever, the temperature never exceeding 101° F., and for the most part keeping close to the normal. I consider it most probable that in some such cases the ulceration is induced by mechanical causes. Drs. Wilks and Moxon have pointed out that a great mass of vegetation may cause ulceration of the heart-wall by direct pressure, or a fibrinous clot swinging in the blood-current coming sharply into contact with the muscle, may by friction start an ulcer.[5] In like manner I think it very probable that a weighty vegetation, or a mass of vegetation, upon a valve may, by agitation in the blood-current, so disturb the nutrition of the endocardium, which constitutes its base, as to start the process of necrosis. The treatment of ulcerative endocarditis, when once established, is hopeless, but the lessons taught by a study of the cases are, I consider: (1) that more than ordinary care should be exercised to keep the subjects of valvular disease of the heart from possible sources of infection; (2) that any threatening of endocarditis should be treated by the most perfect physiological rest attainable; (3) that nutrition should be sustained to the highest degree practicable.

[4] THE LANCET, Jan. 28th, 1882.

FIBRINOUS COAGULA IN THE HEART AND PULMONARY ARTERY.

BY SIR JOSEPH FAYRER, M.D., F.R.S.

(Continued from p. 8.)

SOME of the most remarkable examples of this morbid condition have occurred as sequels, if not direct results, of injuries, wounds, or surgical operations, not only in cases where pyæmia had supervened, but in others, in which nothing indicated the approach of danger until the symptoms of obstructed pulmonic circulation had set in. It is my belief that climatic influences, by deteriorating the blood-elaborating organs and by interfering with the due action of the trophic and vaso-motor apparatus, may determine the occurrence of changes in the blood which render it prone to the formation of these coagula, and in climates like that of Bengal, where all are more or less exposed to malarial influences, its greater frequency than elsewhere may be thus accounted for. But thrombosis of the pulmonary artery and cardiac clot are neither confined to malarial climates nor to traumatic causes, for under certain conditions of disease and of septicæmia, whether traumatic or otherwise, it may occur everywhere, and not merely as a process of the act of dissolution, but as an independent cause of danger or death which, without it, would not have happened.

I am aware that Dr. Richardson and others have long ago pointed out the tendency of the blood to assume this dangerous condition in certain diseases; but it is to the analogous condition when determined by malarial and splenic cachexia or by other conditions which induce leucocythæmia, and to that which results from wounds, injuries, and operations (traumatism), that I now refer, and of which I express my belief that it is a more frequent cause of death than is generally supposed, especially after wounds, operations, or injuries which involve removal of large parts of the body, or much loss of blood and great nervous disturbance; and I would, with much deference, suggest that some of the deaths which have been ascribed to what appear insufficient explanations may have been due to this cause.

Thirteen or fourteen years ago I wrote as follows in regard to a case where death had resulted from this cause after a comparatively trivial injury, a contusion, which had caused sloughing of a small portion of integument on the leg: "There was not sufficient in this case to account for death in an ordinary individual, but in a person suffering as he did from malarial poisoning and enlargement of the spleen, it was more than sufficient." Probably in no condition of disease is the formation of fibrinous congula more likely to

[5] Pathological Anatomy, 2nd edition, p. 120.

occur on the least disturbance than in splenic or malarial cachexia, in which the deteriorated condition of the blood-elaborating organs and the impoverished character of the blood are proved by the anæmia, and the tendency to disintegration and death of the tissues which is so often seen. The evil results of the hyperinosis are seen in the limbs or other parts of the body, which become gangrenous from embolism when it is in the arterial circulation, and œdematous or gangrenous when it occurs in the venous system; or, still worse, in the multiple deaths of portions of the viscera, which are so frequently observed after wounds or injuries.

But it is the formation of the fibrinous clots in the cardiac cavities themselves, and particularly on the pulmonic side of the circulation, which is so dangerous to life. I have repeatedly called attention to the subject as one of great importance, for it is not only in cases where an enlarged spleen renders almost any operation impossible, and which causes almost any wound to prove fatal, but in many others, whether of wound or injury, where there is no obvious disease of the spleen and no cachexia, and where all seemed to promise a favourable issue, that this condition may supervene and rapidly cause death. It is common enough in some diseases as one of the latest phenomena manifested by the moribund; but more than this, it may set in when there is no sign of exhaustion, when repair and nutrition are going on satisfactorily, and within a short time hurry off the patient, whose dead body presents no explanation of the cause of death beyond the presence of a firm, decoloured, adherent clot in the right auricle or ventricle, perhaps extending into the ramification of, or it may be impacted in the entrance to, the pulmonary artery.

I have so far noticed the malady as it occurs in persons who are free from cardiac disease, but that it occurs in them is the more reason why it should happen to those in whom a fatty heart is superadded, especially in a hot, damp, and exhausting climate, or even when the heart, though not itself the subject of fatty degeneration, is loaded with fat, externally, or where there are dilatation weakened muscular cardiac fibre, and, perchance, pleuritic or pericardiac effusions. In such persons, indeed, the presence of fibrinous concretions may not be needed to determine a fatal issue. The temperature of a hot, damp night, in May or June (always the time of greatest vital depression), in Calcutta, and the shock or after-effects of an operation or the depression following an attack of malarial fever, may be sufficient, and the patient, after a short and painful struggle of breathlessness, perishes, notwithstanding every effort to save him. This is very distressing; especially when it occurs to a person who appeared to be recovering, and it becomes a subject of anxious inquiry not only as to how it was caused, but how it may be prevented in others.

I propose to describe the symptoms of, and to illustrate them by, some typical cases in a future notice.

[ERRATUM.—In the last line of the first column, page 3, of THE LANCET last week, for "pulmonary artery on the right centres," read "pulmonary artery or the right cavities."]

Wimpole-street, W.

OBSERVATIONS ON DEATH FROM OBSTRUCTION OF THE CIRCULATION THROUGH THE LUNGS OCCASIONED BY FIBRINOUS CLOTS IN THE PULMONARY ARTERY.

BY T. WHARTON JONES, F.R.S.,

EMERITUS PROFESSOR OF OPHTHALMIC MEDICINE AND SURGERY AT UNIVERSITY COLLEGE, LONDON.

IN persons suffering from injury or even some purely medical complaint, and who appeared to be going on well, Sir Joseph Fayrer[1] has frequently found symptoms of cardiac and pulmonary disturbance suddenly supervene, followed by death. On post-mortem examination of such cases clots in the right cavities of the heart extending into the pulmonary artery were found. From his extended experience of such cases in India, Sir Joseph Fayrer has been led to believe that the cardiac and pulmonary disturbance is symptomatic of the formation of clots in the heart and pulmonary artery, and that the obstruction of the circulation in the lungs thereby occasioned is the actual and immediate cause of death. Sir Joseph Fayrer entertains no doubt that the pathological process in question occurs elsewhere than in malarious and tropical climates, though probably not so frequently. He believes also that the occurrence of thrombosis of the pulmonary artery with clots in the right cavities of the heart is a more frequent cause of death after surgical operations and injuries than is supposed. It is, according to his experience, a frequent cause of death also in cases of cholera, fever, diphtheria, scarlatina, and similar severe and exhaustive diseases.

The persons who succumbed with the symptoms under notice were not, however, always cachectic from malarious influences. Death has occurred from supervention of the disease in cases of injury or operation which seemed to be going on well, when all of a sudden disturbance of the heart's action and difficulty of breathing would set in, ending after a protracted struggle in death. In some cases, however, in which such symptoms occurred, Sir Joseph Fayrer has seen recovery take place.

Obstruction of the pulmonary artery and right cavities of the heart by coagula, causing death, may thus occur in persons not cachectic from malarial influences; still that pathological state is especially liable to supervene in persons who have been exposed to malaria.

In cases of splenic disease and the cachexia attendant thereon, Sir Joseph Fayrer has found the symptoms of thrombosis of the pulmonary artery with clots in the right cavities of the heart especially prone to occur, and almost surely with a fatal issue. A dyscrasy of the blood characterised by hyperinosis, or excessive formation of fibrinous material in the plasma, is the condition on which the thrombosis of the pulmonary artery and deposit of coagula in the heart depend, whilst surgical fever appears to be the state of system which more especially leads to the hyperinosis.

M. Gambetta's sad case was one in point. The physicians diagnosed the nature and cause of the symptoms during life, but at the post-mortem they appear unaccountably to have omitted any examination of the state of the blood.

The injection of a preservative fluid (for the purpose of embalming) into the vessels before the post-mortem examination was calculated, as in President Garfield's case, to interfere with a satisfactory investigation of the state of the blood and the bloodvessels.

[1] Clinical and Pathological Observations in India, London, 1873.

A SIMPLIFIED EVACUATOR FOR LITHOLAPAXY.

BY HENRY J. BIGELOW, M.D.,

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(Concluded from page 7.)

LET me mention in this connexion the results of a former experiment. It might be supposed that if the passing fragments were arrested by a flat strainer placed across the current, whether at the orifice of the bulb or elsewhere, they would fall into a glass receiver placed directly below them. But this is not the case. Though a large part falls into it, some collects upon the strainer; and unless the operator pauses after each aspiration till the fragments have settled quietly into the receiver, they are liable to be carried back by the current, unless it is a very weak one. This has happened, in my own experience, whether the strainer was horizontal, vertical, or oblique. The fragments do not glance from it down into the receiver, but some of them cling to it until the current is reversed, and then go back. To make a strainer act as a trap, the fragments should pass freely beyond it, and be intercepted only on their return. They will then be strained away from the bladder, and not towards it. It is very desirable that the current should be unobstructed while the bulb is expanding, whether by a strainer or by curves and angles in the tubes. A simple flat strainer, placed any where across the whole current, retards it, especially if the urine is flocculent.

I find that the simplest expedient for collecting the fragments, so that they will settle undisturbed in a glass receiver, is to admit them into the bulb and prevent their escape from it. After many experiments I have found nothing more effec-

tual for this purpose than a straight cylinder with perforated walls, which is practically a prolongation of the catheter into the bulb. The water, after bringing the fragments from the bladder, is strained as it returns. To the open end of this perforated cylinder a valve might be attached; either a ball-valve moving loosely,[1] which is less liable to obstruction than a valve with a hinge; or, still better at the same point, half an inch of cotton tube, which opens, allowing the fragments to pass up through it, and collapses with the reversed current, cutting off their retreat, the water, as it returns, passing back through the perforated walls. In operating with this arrangement I have found it to work perfectly, but a valve is not necessary, and the apparatus is more simple without it.[2]

The evacuator described below is more simple in construction and aspirates more perfectly than any I have used. It is shown in Fig. 2, and is a compact modification of one for-

FIG. 2.

The writer's evacuator. It has an elastic bulb, glass receiver and stopcocks. Below, there is a metal brace between the collar of the glass receiver and that of the catheter to steady the latter. Within the bulb, and open at the end, is a tube strainer to prevent the return of débris. The bulb forms a concentric handle to the catheter.

merly published in THE LANCET[3] as "a simplified evacuator," but without the stand of that instrument, which is not essential, and has been omitted because operators seem to prefer to do without it.

The catheter is made to enter a spherical bulb obliquely upwards, and is prolonged to the centre of the cavity by the tube just referred to, open at its end, and perforated on its sides with numerous holes, which act as a strainer. The catheter, tube, and elastic bulb are in a straight line. This arrangement has the great advantage of *not deflecting the current*, and thereby diminishing its force. During aspiration the current bearing the débris is drawn straight from the bladder through the tube into the widest part of the bulb, and the fragments, spreading there, fall towards the receiver. But when the bulb is compressed, the water returns mostly through the perforations in the side of the tube, because their area is collectively larger than the opening at the end of it, and because they are nearer the point at which the water passes out of the bulb. By means of this simple contrivance the water is strained, and *the return of fragments is practically prevented*. The tube-strainer can be removed, cleaned, and replaced in a moment, and this is an advantage when there is much mucus, coagulum, or shreddy material in the urine, by which the holes of any strainer may be partly obstructed. Even then this tube continues to work well, but it is better to pass a brush over it if mucus adheres to it. It can be examined as often as the receiver is emptied. After the water has once been changed less mucus will be found.

The action of the perforated tube meets all requirements. In fact if the catheter is prolonged into the bulb by a tube which has no perforations in its sides, the instrument will perform very fairly. Such a tube might be fastened permanently in the bulb, but the apparatus can be kept cleaner if there is a joint through which it can be removed. The cavity of the bulb cannot be made too accessible.

The above arrangement has several other advantages.

1. With the trap placed inside the bulb, the instrument is more compact, shorter, and more easily held; and as the spherical bulb is here placed in a straight line with the catheter, it forms a concentric handle, which enables the surgeon to direct the catheter better than when this handle is placed above it at an angle with it.

2. The glass receiver is here attached immediately below the bulb, and is easily seen. A glass cylinder shows fragments better than a globe, but is less capacious.

3. It is well known that the bulb in action, especially when placed above the catheter at an angle with it, communicates an oscillation to it of which some patients complain. By a special device the catheter is here made so steady while the instrument is in use that a separate stand is not wanted. This consists of a brace uniting the metal collar of the catheter with that of the glass receiver, and so steadying it that *the catheter no longer feels the movement of the bulb*. The conical projection of the bulb at the point where the catheter is attached contributes to the same result.

4. An elastic hose (Fig. 3) which can be quickly connected with the top of the bulb facilitates the operation. We can

FIG. 3.

Apparatus belonging to the evacuator but not essential to it—viz., a tunnel and a hose, both of which fit on to the top of the bulb; and an extra stopcock for the evacuating catheter.

then, with a single compression of the bulb, get rid of any air or discoloured water, and replace it with clean water without delay and without uncoupling the catheter. Besides, no matter how the bulb may have been filled at first,[4] it is better to be able to vary the quantity of water at any moment afterwards, and although without a hose we can add water through a funnel, we cannot as easily withdraw it in

[1] THE LANCET, September 24th, 1881.

[2] A hinged or other valve-strainer at the mouth of the catheter, if it opens to allow the water and the débris to pass through, works well enough as a substitute for the tube-strainer. The catheter then opens directly into the bulb, and the route is the shortest possible one. But the tube-strainer is much more simple, and the two inches which it adds to the length of the catheter are quite unimportant. In fact, the usual length of the catheter itself might be reduced two inches to shorten the route if desired. For strainers and strainer traps, see THE LANCET, Sept. 24th, 1881. As there described, they are used in pairs, one protecting the entrance of the bulb, while the other, furnished with a valve and placed at the head of the catheter, acts as a trap. The former, for reasons already given, is not always advantageous, but an effectual catheter-trap to arrest returning fragments is necessary.

[3] THE LANCET, Sept. 24th, 1881, Figs. 8 and 11.

[4] We can quickly fill the evacuator from a pitcher, if we invert the bulb and detach the receiver. The little remaining air can afterwards escape through the hose or tunnel.

the same way. We should be able to regulate the amount of water carefully, not only at the outset according to the capacity of the particular bladder, but also during the operation. For example, it is sometimes desirable to draw it quickly away to allow for the muscular strain of retching, or to relieve the expulsive efforts of the bladder itself, which sometimes becomes very tense, and ejects water at the side of the catheter, even the large ones. More water is required at first, while fragments are numerous, to separate them and prevent their being wedged in entering the catheter. Later in the operation, less water makes it easier to find the last fragment, the minimum being reached when the wall of the bladder vibrates against the orifice of the catheter as the bulb expands, painfully, if the patient is conscious. It is then important to add water again, just enough to prevent this obstruction and no more. In short, there is no doubt that we can evacuate better by trying a little more or less water from time to time during the operation, and that this can be done more accurately and more readily by means of a hose than in any other way. With one end attached to the bulb the other can conveniently remain in a vessel placed between the patient's knees, or in any convenient position, or remain unattached till wanted.

The hose may be used or not. For those who prefer a funnel (Fig. 3), one is furnished with the instrument; as also a second stopcock (Fig. 3), which I find useful if attached to the head of the catheter, in keeping the bedclothes dry when the bulb is to be removed.

This evacuator is made by Codman and Shurtleff, Boston, U.S., and by Messrs. Weiss and Son, Strand, London.

ON VENESECTION.

BY W. H. BROADBENT, M.D., F.R.C.P. LOND.,
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(*Concluded from p. 5.*)

IN another and very important class of cases the indication for bleeding is high arterial tension. It is not, of course, desirable to open a vein whenever the blood-pressure within the arteries is greater than normal, but only when this has reached a point at which it is attended with urgent danger. If no serious or threatening symptoms are present and time is allowed, the tension can be reduced by other means. The effects of unduly high arterial tension are characteristic, and the condition is as easily recognisable as an indication for venesection as is over-distension of the right side of the heart; the explanation, however, of the symptoms by the assumed cause and of the observed results of the treatment is not very easy.

The most striking illustration of the good effects of bleeding is met with in uræmic convulsions. No one who has tried venesection in these cases can, I think, fail to recognise its immediate efficacy and its favourable after-consequences. My own experience, at any rate, has convinced me of the value of such a mode of treatment. I may, by way of illustration, mention two cases which came under my care in St. Mary's Hospital within a week of each other, early in 1879. One was that of a boy of twelve, which was exceedingly interesting for several reasons. He was admitted for violent uræmic convulsions coming on in the course of scarlatinal albuminuria. One interesting point was that the convulsions were unilateral, illustrating the fact that one-sided convulsions may result from a condition affecting both sides of the brain. He was bled from the arm to eight ounces. The convulsions became less severe and soon ceased, but were succeeded by extraordinary maniacal excitement, not mere delirium; illustrating another fact with which I had previously become acquainted—viz., that a morbid condition which gives rise to convulsion may in a less degree give rise to maniacal excitement. This passed off in about twenty-four hours, and finally the albuminuria disappeared in less than a week. The other case was that of a little girl, also admitted for scarlatinal albuminuria and uræmic convulsions, who was bled, and, as in the boy, not only were the convulsions arrested, but within a week the albumen disappeared from the urine. She was readmitted on account of a relapse soon after her discharge, but again recovered.

It does not, however, necessarily follow that the *modus operandi* in the arrest of uræmic convulsions is by relief of arterial tension. This is, however, probable, as will be seen from the following considerations. The conditions present in uræmia, in addition to the high pressure within the arteries, which may possibly excite convulsions, are the contamination of the blood by urea or other urinary matters, a watery state of the blood, cerebral anæmia, and serous effusion. Now, abstraction of blood containing only its own proportion of urinous impurities cannot render that left behind more pure; it will indeed probably for the time be more impure, and will certainly be more watery from the absorption of fluid from the tissues to replace the blood lost. It can scarcely, therefore, be by any improvement in the quality of the blood, whether by removal of poisonous matters or by correcting its dilution, that bleeding arrests the convulsions. The remaining conditions named, anæmia of the brain and serous effusion in the meninges, are possible effects of arterial tension, and their influence cannot be separately estimated. The same may be said of the minute capillary hæmorrhages supposed by Dr. Mahomed to be the immediate cause of the convulsions; if they are the proximate determining lesion, they are themselves the effect of extreme high pressure in the arteries. As regards the arterial tension, it is well known that it is raised in almost all diseases of the kidney; and it has always, according to my observation, become extremely high when uræmic convulsions are impending. Convulsions, moreover, are sometimes associated with inordinate arterial tension when there is no disease of the kidneys. Finally, in whatever way venesection acts as a remedy, it certainly lowers the pressure in the arteries. (I must here add, in order to avoid misunderstanding, that convulsions may occur when the arterial system is in the very opposite condition to that of tension, and that in epileptics the pulse is often —usually I should say—remarkably soft, short, and weak.)

But granting that extreme arterial tension is an invariable antecedent of uræmic convulsion, and therefore fulfilling the condition of a cause, this does not explain how the convulsions are produced. It is not yet definitely settled whether the obstruction to the passage of the contaminated blood has its primary seat in the capillaries or in the arterioles. If in the capillaries, then, notwithstanding the contraction of the arteries, which would on this hypothesis be protective, these minute vessels must be exposed to the distending influence of the high pressure in the arterial system, and capillary hæmorrhages or serous effusion will be a probable consequence. It has again been supposed that the forcible injection of the brain might so far expand it as to give rise to pressure on the venous sinuses and outlets, which would dam back the blood and cause a degree of stasis in the cerebral circulation. If, on the other hand, the stopcock theory of Dr. Johnson is true, and the primary obstruction is due to the contraction of the arteries, the supply of blood will be limited, and the pressure in the capillaries may be below that of the normal condition. The former hypothesis is, in my opinion, the more consistent with all the facts.

But it is time to describe the indication for venesection under consideration, and one more different from the flushed face and full bounding pulse, traditionally supposed to constitute this, could scarcely be imagined. The face is pale; when the fingers are placed lightly on the radial artery pulsation is hardly felt, and the vessel is usually small, though it may be large. The first impression is that the pulse is weak. When pressure, however, is made, so as to test the force of the current of blood, the pulsation is not easily extinguished, and the firmer the pressure the stronger the beat seems to be. At the same time the artery is full between the beats, and can be rolled under the finger like another tendon, or like a piece of whipcord. The heart will be usually found to be hypertrophied, and more or less dilated, and very commonly there is reduplication of the first sound over the inter-ventricular septum near the apex, due, as Dr. Sibson demonstrated, to want of synchronism in the systole of the two ventricles. When with these evidences of high arterial tension convulsions supervene, the most prompt and certain remedy is venesection.

Two cases have already been briefly related in which bleeding was of marked service in uræmic convulsions. The disease in both was acute scarlatinal nephritis, and an illustration of its utility in chronic renal disease may be added. The patient was a lady, to whom I was called by Mr. Cripps Lawrence. She was, though comparatively young, the subject of contracted granular disease of the kidney, established apparently in previous pregnancies, and was again pregnant. She was suffering from vomiting, pain

in the head, and confusion of the mental faculties, which had rapidly increased, and at the time of my visit she was in a state of stupor. The pulse was extremely small, long, and hard. It was evident that convulsions were impending, and Mr. Lawrence had already warned the husband of this. The warning was repeated; a nurse was set to watch the patient, and it was agreed to endeavour to avert the attack by purgatives and bromide, but that should convulsions come on venesection was to be performed at once, and then premature labour was to be induced. Within a few days the apprehended attack came on. The patient was bled, the convulsions were arrested, and a miscarriage was then brought about. The patient made a good recovery, and regained, and retained for some years, apparent health, under the judicious management of Mr. Lawrence. After various complications she ultimately died from cerebral hæmorrhage, and a post-mortem examination confirmed the diagnosis.

Whenever in kidney disease the symptoms of uræmic poisoning show themselves, vomiting, headache, confusion, stupor, muscular twitchings, &c., which experience has taught us lead up to convulsions, we almost always find the signs of undue arterial tension described, and we may confidently anticipate that venesection will at the same time diminish the pressure and relieve the symptoms. I have in several cases both of contracted granular and large white kidney, when cure was hopeless, diminished the suffering of the last few weeks of life, and changed the mode of death, by small bleedings, when the headache became intolerable and convulsions were impending.

An example may be related in which bleeding was several times practised.

The patient, a young man, aged twenty, was first admitted into St. Mary's Hospital in August, 1879, for a slight attack of diphtheria, which, however, set in with a convulsion. As he recovered it was found that he was the subject of chronic albuminuria, which explained the unusual mode of onset of the diphtheria. He recovered from the diphtheria and left the hospital, but returned on Nov. 16th, exhibiting all the marks of advanced renal disease and complaining of loss of sight. On ophthalmoscopic examination severe albuminuric retinitis was seen to be present, to which the impairment of vision, already serious, was due. The pulse exhibited all the characters of extreme arterial tension: it was long, hard, and incompressible, the artery being full between the beats, and feeling like a thick cord as it rolled under the finger. The boy was extremely pale and rather weak, but he was on the verge of uræmic complications; and on this account, and in the hope of saving the eyes from further damage, venesection was ordered to eight ounces on Nov. 19th. The form of disease affecting the kidneys was considered to be large white kidney from acute desquamative nephritis in process of contraction, and we were not altogether without hope that as bleeding is sometimes promptly curative in the early stage, it might be of service even then. The patient was relieved, and the eyes certainly did not seem to get worse as fast as before, if, indeed, they did not improve; the pulse became larger, softer, and shorter. There was no perceptible difference, however, in the state of the urine, and the symptoms gradually returned, in spite of the usual treatment. On December 17th he was apparently moribund, excessively pale, scarcely conscious, with headache, muscular twitchings, and all the signs of impending convulsions. The pulse was small and long, though not very strong as the heart was acting feebly, the artery was full between the beats and could be rolled under the finger. It seemed as if the loss of an ounce of blood would prove fatal, but as he was clearly about to die and no other treatment offered him a chance; he was bled to eight ounces. The effect was remarkable. He began at once to improve, and so far rallied as to get up daily and go about the ward and to enjoy his food. The tension, however, which was markedly lowered, gradually increased, but we hesitated to take away more blood from a patient who was so extremely anæmic. As we declined the task copious epistaxis came to the patient's relief. On Feb. 11th, after premonitory symptoms for some days, convulsions again come on, for the relief of which my resident, Mr. Havell, at once bled to twelve ounces, and as uræmic symptoms were still very severe, and the arterial tension very high, on Feb. 14th he was further bled to eight ounces. After this the confusion and stupor disappeared and the patient became quite clear in his mind; but he died on Feb. 16th, remaining rational to the last. On post-mortem examination the diagnosis of large white kidney becoming granular was confirmed.

But high intra-arterial pressure may exist independently of kidney disease, and may give rise to convulsions when it reaches a certain degree of intensity. In 1877 I reported to the Clinical Society a case illustrating this, in which venesection was attended with remarkable success. It may be reproduced here, and is as follows:—

The patient came to my consulting-room on Wednesday, July 25th, 1877, saying that on the previous Monday morning he had an apoplectic attack. All that he knew about it was that, on coming to himself, at about 6 A.M., he found the house had been roused and a medical friend, Dr. Gaven, sent for. He pointed out a general discoloration on the forehead and chest, which was found to be due to innumerable minute capillary extravasations, and I inferred, what turned out to be the case on inquiry from his wife later, that there had been convulsions. He said he had had a little headache after the attack, but that he then felt perfectly well, and he laughed at the serious view taken of the case. While he was talking with me I observed several momentary suspensions of consciousness, during which he lost the thread of his conversation or ceased to hear what I was saying. I had seen this gentleman before, and knew the main facts of his medical history. He was about forty-two years of age, inclined to be stout, and slightly florid. He was of an excitable disposition, and intellectual in his pursuits. He had spent much time abroad; had lived freely and heedlessly, but had not been given to excesses; had had syphilis when young; had taken much mercury and iodide of potassium, and the last manifestation, which had been rupial ulceration, of which he bore many scars, had taken place eighteen years ago. Exactly twelve months before he had had a carriage accident, in which he received a very severe concussion of the brain, and was supposed to have sustained fracture of the base of the skull. He had been unfit for professional work for three months, and on his return to it did very little for some time, and was extremely careful in the matter of diet and drink. Little by little he had increased his work and thrown off the restraints imposed upon him, and had resumed his old convivial habits. He acknowledged that he was more irritable than before the fall, but considered that no other ill effect remained, except that he had lost the senses of smell and taste. After hearing the patient's account of the attack and making the observations mentioned I sent him home, ordering him aperient pills and small doses of bichloride of mercury.

Next morning I was called to him, and reached his bedside between 7 and 7.30 A.M. I found there Dr. Gaven, and learnt that our patient had had a succession of violent convulsions from about 3 A.M., at intervals of about fifteen minutes, and had been unconscious the whole of that time. He was lying on his back unconscious, tossing restlessly, throwing about his arms, and groaning loudly. The face was expressive of suffering, the eyes closed and held firmly shut when the attempt was made to open them, the pupils equal and of moderate size. It was noticed that the left arm was moved less than the right, but on careful watching it was apparent that the reason for this was some injury to the muscles about the shoulder-joint, and there was no evidence of hemiplegia or paralysis of any kind. The heart was beating violently, but the sounds were normal. The pulse was rather small and weak, but long, and the artery was full between the beats. When an attack of convulsions was coming on the groaning ceased, and the limbs were at rest. The eyes were then opened widely, their look and the expression of the face being for a moment almost natural, but the pupils quickly dilated, the cornea was turned up under the eyelid, the face became distorted, and there came a long and fearful groan, or almost scream, at the end of which the entire body and all the limbs were convulsed with violent synchronous jerks. The face became livid, the pulse imperceptible, and the heart-beat weak, and it seemed as if life were extinct. This would, I think, really have been the case had it not been for Dr. Gaven, who at the critical moment of each attack got a spoon between the teeth, depressed the tongue, and started respiration artificially by pressure on the chest till the respiratory movements began to be re-established.

While we were discussing and deciding upon the line of treatment two attacks occurred, notwithstanding administration of chloroform. Mustard poultices had already been applied to the calves and to the nucha. A dose of calomel

was placed on the tongue. An enema was ordered, and then bromide of ammonium, or potassium, with chloral, was to be injected into the rectum. Any effects to be hoped for from these measures, however, would require time, and every hour was full of peril. We consequently decided to bleed the patient. This was done by Dr. Gaven to at least thirty ounces. The pulse did not falter during the flow of blood, but became larger and softer. There was no other apparent effect at the moment. Another convulsion came on, the third I witnessed, almost before the bandage could be adjusted. It was as violent as any of the others, but it was the last. The convulsions from this time ceased entirely. In the afternoon the patient had regained consciousnes, but could not speak. Next day he talked very well, but his ideas were rather scattered. In another day or two his intellect was quite clear, and except that he felt very stiff everywhere, and had pain in the left shoulder, to the muscles of which some injury had evidently been done by the convulsion, he declared himself to be quite well. Bromide of potassium was given, and Dr. Gaven carefully watched the progress of the case. For some time there was much jerking of the limbs during sleep, and once or twice some apprenension was excited by pain in the head, or excitement of manner, but there was gradual improvement, and very soon the patient was able to do a little work. He recovered completely, and is now (Dec. 1882) perfectly well.

Another example of successful bleeding is worth relating, and the more so as the case did not come under my observation till afterwards. The patient was a young lady, aged about twenty, who was brought to London for my opinion in October, 1879, with a letter from Dr. A. Newington of Wheatley, from which the following is abstracted:—She had enjoyed good health, but suffered from constipation and piles, took plenty of exercise, was abstemious in diet, and took no stimulants. The catamenia had been absent for some months, and while abroad during the summer she had suffered from fulness in the head and disinclination for society, and when she walked up hill her face became purple, and she felt as if about to have a fit. These sensations had increased to an extreme degree; the conjunctivæ were injected, and the pulse full and throbbing; the symptoms were so urgent that Dr. Newington at once bled her on Sept. 21st to thirty ounces. She lay down for an hour, had lunch, and felt so much better that she went to church. Slight discomfort in the head was all that remained, and for this bromide was given, aloes and myrrh at night and Friedrichshaller water in the morning being also ordered. In two or three days she seemed to be quite well; and she so remained till Oct. 14th, when Dr. Newington was again called to the patient on account of a similar but milder attack. Menstruation, however, now came to her relief. I saw this young lady at the end of October; and although she then considered herself perfectly well, there was still high tension in the pulse, and there could be no doubt that it had risen to the point of danger, when she had the fulness in the head and other symptoms. In my opinion, indeed, the bleeding averted a serious catastrophe.

The injurious effects of high pressure in the arterial system are not confined to the production of convulsions. These, indeed, are rare and exceptional, while innumerable lives are shortened by it in other ways. Even moderate excess of tension in the long run produces disease of the vessels, or of the heart, or of both; and it was in such a condition of the circulation which was accurately recognised by the more discriminating of our forefathers that the "spring and fall bleeding," which was so common, would really be of service. I venture, indeed, to affirm that many lives might be prolonged, and many attacks of paralysis averted, by a revival of this practice in certain cases, not that no other means are available, but because such patients would submit to an occasional periodical loss of blood, while they will not exercise the habitual self-restraint and abstinence required to carry out a plan of treatment which must extend over months and years.

I am particularly anxious that it should not be supposed that bleeding is indiscriminately recommended as a remedy for convulsions. Only when high arterial tension is present should it be employed. For this reason I relate the following case:—

In November, 1881, a strong and previously healthy labouring man was brought into St. Mary's Hospital, who had for some hours passed from one convulsion into another with short intervals of complete unconsciousness. The convulsions were violent, but presented no special feature. There was no history of previous attacks of the kind, or of kidney affection, or of other disease. The temperature had gone up to 104°, and my resident, who had seen the good effects of venesection in uræmic convulsions, had already bled the patient to sixteen ounces before I saw him. The pulse, however, instead of being small, long, and hard, was very large, full, soft, and short; it was the typical full and bounding pulse; the arteries dilated to the utmost, the blood rushing through them in full stream. There were features about the case which led me to anticipate a fatal result; the loss of blood had produced no effect, and as the amount taken, though considerable, was inadequate if any decided impression was to be made on such a case, he was again bled. There was still no apparent result. The temperature continued high, the unconsciousness persisted, the convulsions recurred, and the patient died. Nothing abnormal was found in the brain to account for the convulsions, nor was any morbid condition of importance discovered in any organ.

It was formerly the practice to bleed after severe injuries to the head, especially when symptoms of so-called cerebral irritation came on. I have no doubt there are cases in which it would be of very great service, but it is a matter in which I have no experience. It might seem at first sight that bleeding ought to be a valuable resource in cerebral hæmorrhage; but careful thought would lead to the conclusion that its operation could only be extremely limited, and this is what is found in practice. We should not be so liable now to take the effects of embolism and thrombosis for those of rupture of a vessel, and so do serious harm instead of good; but in a large proportion of cases of cerebral hæmorrhage the mischief is done before the patient comes under observation. In ingravescent apoplexy, however, the oozing of blood appears to continue for some time, and as this form of attack is almost invariably fatal, it would be well worth while to try what bleeding could do. I have seen only one case sufficiently early for such a trial, and in that a vein was opened first in one arm and then in the other, but no blood could be got to flow. Mr. Boon, now of St. Kitts, who was then resident medical officer, actually passed a probe upwards and downwards in one of the veins. We were about to open the jugular, but here we had difficulty in getting the vein to fill, and while we were engaged in the attempt the vomiting, which is one of the symptoms of ingravescent apoplexy, came on and compelled us to desist. The chance of doing good was now over, and the patient gradually became comatose and died. The enormous clot usual in these cases was found just outside the corpus striatum.

While bleeding comes too late when an artery has already burst in the brain, it might often avert such an event, and when the indications of excessive arterial tension have been well mastered, and are distinctly recognised in a patient who presents any of the premonitory symptoms of apoplexy, venesection ought to be fearlessly practised. Almost every medical man will have seen cases in which epistaxis has at once brought relief from threatened apoplexy, and it is in our power to afford relief equally efficacious.

It is probable that there are other conditions in which bleeding would be of great service; but it is better to proceed with extreme caution in the reintroduction of this practice. There is a strong prejudice against it in the public mind, though not, in my experience, so strong that it will be forbidden when it is recommended by a medical man who has confidence in its power to do good; and this makes it important, in the interest of the medical man, that there should be no doubt as to its beneficial effects whenever it is tried. The great service, again, which venesection is capable of rendering in suitable cases is a weighty reason for desiring that its employment should not be retarded by resort to it in cases where its effects are doubtful. The ground gained should be made sure by experience before further advance is attempted.

Seymour-street, W.

CAPTAIN DALRYMPLE, of the British ship "Alfred," has been summoned at Liverpool on four informations for having neglected to serve out lime or lemon juice to the crew. No lime or lemon juice was served out for 200 days of the voyage, and for each day a penalty of £5 could be inflicted. Fortunately no sickness occurred on board during the voyage. The magistrates imposed a fine of £5 and costs on each of the four indictments.

ON SOME POINTS IN THE TREATMENT OF URINARY ABSCESS, STRICTURE, AND EXTRAVASATION OF URINE.

BY REGINALD HARRISON, F.R.C.S.,
SURGEON TO THE LIVERPOOL ROYAL INFIRMARY.

THOUGH the statement may appear almost paradoxical, there are a number of the worst cases of stricture of the urethra which are positively benefited by the formation in association with them of a urinary abscess, having an outlet in the perineum.

If in these cases the natural course of events is supplemented by some surgical assistance, the after-condition of the patient is often ameliorated, and he dates his improvement from what is generally regarded as a serious and painful complication. This advantage may be traceable to one or other of the following events happening spontaneously:—(1) To the formation of a perineal fistula through which urine escapes more easily than through a tight stricture previously subject to spasmodic attacks; and (2) to the destruction of, in great part, or alteration in, the original stricture by sloughing or suppuration when a lesser evil is substituted for a greater one. There is, however, a risk attending these complications which may bring about a fatal termination unless it is amply provided against. I refer to extravasation of urine and pelvic cellulitis arising therefrom. When, however, extravasation is anticipated, or dealt with before much damage has been done, the risk is comparatively slight, provided that the patient's health has not been seriously deteriorated by long-standing suffering. A urinary or peri-urethral abscess is the result of protracted local irritation within the urethra. Hence it is usually met with about the point corresponding with the common seat of stricture—viz., the bulb. In addition to its more frequent association with stricture it may be caused by gonorrhœa, especially when affecting the deeper portion of the urethra, by the passing of bougies, or by the use of too strong injections. It would not be difficult to illustrate its occurrence and course under all these circumstances. It usually commences with tenderness in the perineum, followed by swelling distinct to the touch and accompanied with increased bladder irritability. In cases uncomplicated with organic stricture it seldom occasions much anxiety. The adoption of soothing treatment externally to the part, and to the urethra from within, is generally sufficient to bring about resolution. Operative treatment is seldom required so long as micturition is not interfered with. Should the swelling be sufficient to occasion retention by pressure on the urethra, then an opening may be required. In doing this care should be taken not to open into the urethra, it being important not to interfere with the integrity of the canal. It is sufficient to open up the abscess from without, for if the urethra subsequently gives way, no fear of extravasation need be apprehended; whilst, on the other hand, it by no means follows that the urethra and the abscess cavity shall become continuous. The occurrence of a rigor in conjunction with the formation of a perineal tumefaction is another indication as to the propriety of incising.

It is, however, to the variety of this disorder when associated with long-standing stricture that I wish more fully to refer. A patient who has suffered from stricture for a considerable period, and has been much worried by it, as well as the treatment necessary to keep it tolerably pervious, finds a degree of hardness between the scrotum and anus which increases. The efforts to urinate are frequent and distressing, and the patient strains to get relief. Relief may come in the form of a natural discharge of the abscess and the formation of one or more openings by which the urine is voided. But the most serious event is when the urethra gives way and becomes continuous with the abscess cavity, and the urine is forced amongst the tissues comprising the scrotum, penis, and abdominal parietes. Here, then, is urgent necessity for free incision wherever the urine has strayed. In the majority of cases of this kind the damage is all anterior to the deep triangular ligament, so that the cavity of the pelvis remains intact. There are, however, important exceptions to this, to which I shall presently refer.

It is generally agreed that an early opening of the abscess and incision wherever urine has become extravasated is the only treatment to be adopted under these circumstances. A considerable experience of this class of cases has, however, convinced me that it is, as a rule, better to divide their treatment into two occasions; first, to deal with the pressing symptoms of abscess, retention, and impending extravasation, reserving for a subsequent opportunity, as will be presently illustrated, the treatment appropriate to the stricture itself. I have several times both opened the abscess from the perineum, and at the same time divided the stricture; but I am satisfied that it is far better, far safer, to postpone the latter step. Far better, because the condition of many of these strictures is often materially altered and improved by some of the consequences of a urinary abscess; far safer, because the proceeding is limited to the relieving of tension and evacuation of matter, without invading strictures which are more or less involved in an acute inflammatory process. Formerly I contented myself with a free perineal incision into the abscess, and what I believed to be the urethra behind the stricture. In some of these cases, where no instrument could be passed through the stricture into the bladder, this belief, that the urethra had been opened into through the abscess, was only founded on the fact that urine escaped freely through the opening that had been made. This I now believe to be insufficient evidence of the completeness and permanency of the new channel through which urine has, at all events for some time, to escape by.

As already remarked, in the majority of these cases the whole of the mischief is anterior to the deep triangular ligament; in a small proportion, however, there is collection behind this barrier and burrowing of matter, or extravasation of urine in a backward direction, either upwards on to the anterior surface of the bladder behind the pubes, or downwards towards the pelvis, may be going on. It is not always possible to discriminate in urinary abscess and early extravasation whether the whole of the mischief is confined to the parts anterior to the triangular ligament, or is also going on behind it; and yet the distinction is a vital one. Two cases of the latter kind came under my notice within a short period of each other, and were the means of altering my procedures; I believe for the better. In both I thought I had provided sufficient vent for matter or extravasated urine, but it proved otherwise. In one the bladder above and behind the pubes became œdematous and required incision, through which deep sloughs were discharged, and in the other, through a free perineal incision, with my finger and forceps, I subsequently removed sloughing masses which had evidently been formed within the pelvis. In the latter a constant rise in the temperature convinced me that retrograde extravasation was going on, though the urine seemed to be well discharged from the perineal aperture.

To further guard against occurrences of this kind I now make it a part of the procedure in all these cases, not only as I did before to open the perineum, abscess, and urethra, but further to introduce a lithotomy or similar tube through the wound into the bladder for retention so long as urine has to be largely passed in this way, and so to establish an uninterrupted drain. Tubes for this purpose have been made for me by Messrs. Krohne and Sesemann, as here represented. They

have a slightly rounded end, so that they may the more easily be passed into the bladder when the urethra has been opened, and they are provided with eyelets, by means of which they may be secured by a T-bandage. To the end of the cannula a piece of rubber tubing is attached, to convey the urine as it escapes into a receptacle by the patient's bedside. In this way he is kept perfectly dry and free from smell. An ordinary lithotomy gum elastic tube may be used for this purpose, but a metal instrument is as a rule to be preferred. Where the perineal tumefaction is situated about the bulb, the usual seat of stricture and abscess, I have the patient placed in the lithotomy position, and make my incision as if I were doing a median lithotomy without a staff. If the knife is passed sufficiently deeply towards the apex of the prostate and in the median line, with its back towards the anus, there is no difficulty in opening the membranous urethra. If the opening

is made sufficiently boldly, so far as depth is concerned, the finger will readily enter the urethra, and then may be passed on into the bladder. On the withdrawal of the finger the tube is then to be substituted. It is seldom under these circumstances that a grooved staff can be introduced into the bladder by the urethra. A stricture rarely occasions an abscess behind it so long as it remains permeable to an instrument or to urine otherwise than in drops. The operation is seldom attended with hæmorrhage when it is executed precisely and cleanly. If the bleeding is free, one of Buckston Brown's tampons may be substituted temporarily for the other tube. Before the finger is withdrawn from the bladder and the tube introduced, advantage should be taken to explore the interior of the viscus, forcible pressure being exercised above the pubes with the other hand so as to bring the bladder within reach. In many cases of long-standing stricture, where the bladder has undergone structural changes, I have thus incidentally been able to obtain information which was of value in the future management of the case. In two instances I removed phosphatic concretions from off the mucous membrane which might have formed nuclei for stone. What I have described closely resembles Cock's operation of tapping the urethra at the apex of the prostate; it may, in fact, be said to be an adaptation of it for treating retention of urine complicated with stricture and urinary abscess, with extravasation of urine impending or commencing. I usually retain the tube in the bladder for about a week, or until the perineal wound has commenced to clean and all sloughs have been discharged. The stricture should then be explored from the meatus. In some instances it will be found that the abscess has converted what was previously a tight impassable stricture into one that will admit of dilatation by bougies. I have thus succeeded in eventually obtaining a full-sized urethra, with occlusion of the perineal incision, as in Syme's operation. In other cases I have found the stricture unamenable to management of this kind, and have treated it by section, either from within or without; whilst in a few the urethra has been found so extensively disorganised that the patient has been glad to exchange his previous condition of stricture and discomfort for one of perineal fistula and comparative ease in accordance with the excellent practice of Mr. Cock. In cases where extravasation has also taken place and the skin is undermined with sloughs and pus, it is a matter of considerable importance to know that whatever sinuses there may be connected with the urethra along which fluids may burrow, there is a direct escape for urine from the bladder which cannot be interfered with, and that consequently no further extravasation unknown to the surgeon is likely to take place.

I may here observe how desirable it is that any incision practised upon the perineum for an inflammatory swelling should be confined to the median line, as indicated by the raphe. It sometimes happens that the perineal tumefaction occasioned by a stricture and resulting in abscess is by no means central; on the contrary, cases are frequently met with where the formation is lateral, and may be traced in the direction of one side or other of the pubic arch, the matter making its way in the interval between the muscles and in contact with one of the crura penis. Still under these circumstances the incision must correspond with the raphe, otherwise hæmorrhage and permanent fistulæ may be the result. Though the most prominent point of the swelling may not always correspond with the incision, the abscess cavity or extravasation is almost invariably opened into with the knife as the urethra is approached, or, if necessary, may be reached with the finger or dressing forceps. In incising the perineum for abscess or extravasation I have always regretted any departure from the rule I have thus formulated for my own guidance. An abscess or a deep extravasation, though taking origin from a centrally situated stricture which has caused the urethra to give way, can occasion a lateral tumefaction which may mislead. I will illustrate these observations by some brief notes of cases, premising, to save repetition, that they were all instances of long-standing subpubic stricture of the urethra occurring in middle-aged men in my practice in the Royal Infirmary; these came under notice within a short period of each other, and formed material for clinical remarks at the time.

CASE 1.—A. B—— had been almost unable to pass any urine for six days, when he noticed a hard swelling behind his scrotum. He had had a rigor before his admission into the infirmary. On admission nothing but a filiform instrument could be passed. The perineum was hard and bulging, and the region of the bladder was exceedingly tense. I opened the perineum with a deep incision, which enabled me to pass my finger into the membranous urethra, and on into the bladder. A quantity of fetid pus and urine was discharged. A tube was introduced into the bladder through the wound and secured in the manner that has been described. By this arrangement bladder drainage was carried out. Seven days afterwards I removed the tube and passed a small bougie along the whole length of the urethra. I felt sure from the feel of the stricture that dilatation could now be proceeded with without difficulty. In a month the perineal wound had closed and the patient left the infirmary passing a full-sized bougie for himself. He remains well though he occasionally passes an instrument for himself.

CASE 2.—In many respects similar to the preceding, but some extravasation of urine into the scrotum and penis had taken place before I saw this patient. The practice adopted was the same as in Case 1, with the addition of incisions where extravasation had taken place. At the end of eight days I removed the tube and subsequently tried gradual dilatation of the stricture, but without any progress. As the stricture was tight and contractile, but at the same time limited, I performed internal urethrotomy with Maisonneuve's instrument, after which quite as good progress was made as in the previous instance.

CASE 3.—Here, in addition to an enormous urinary abscess, there was extensive extravasation of urine, the root of the penis being occupied by a dense cicatricial mass, the result of an old laceration with a cotton hook. With a perineal tube, and free incisions wherever there was extravasation, and plenty of support, with good nursing, he made excellent progress, but I was never able to establish the continuity of the urethra. I therefore left him, as in Cock's operation, to micturate through his perineum, an exchange which he has never regretted. He has no desire to return to the previous condition of wretchedness which his dense stricture entailed upon him.

My observations lead me to the following conclusions:—1. That in all cases of perineal abscess and extravasation of urine associated with organic stricture of the urethra perineal urethrotomy behind the stricture should be practised, and provision made for the direct escape of urine by the insertion of a tube into the bladder from the wound. 2. That the treatment of the stricture should be postponed until the more urgent symptoms of abscess and retention, or extravasation of urine, have been relieved.

CASE OF FIBROUS PAPILLOMA OF THE FEMALE BLADDER SUCCESSFULLY TREATED BY OPERATION.

BY FREDERIC THORNE, M.R.C.S., &c.

ON June 18th, 1881, I received an urgent summons from a lady, aged twenty-eight, and unmarried, who had passed a considerable quantity of dark porter-coloured urine. This, upon inquiry, had occurred twice before at intervals of twelve months, but as the general health was not in any way affected no notice was taken of it. On examining the water with the microscope I found, as I thought, a large quantity of hæmatin, but few blood cells, and imagined the case to be one of hæmatinuria; but as I had to convey the specimen in warm weather a distance of twenty-five miles, I now conclude that this appearance was due to commencing decomposition. The hæmorrhage yielded to internal treatment by astringents, but relapses occurred at intervals of a few weeks until January last. The bleeding then increased in quantity and frequency, and soon became constant, being accompanied by all the distressing symptoms of cystitis. The bladder was examined for stone, failing to find which I proposed to dilate the urethra, if only as a means of diagnosis, on the ground that the symptoms justified a suspicion of the existence of some form of papillary disease. My diagnosis was not supported by others who were consulted, the prevailing opinion being that the case was one of tubercular ulceration of the bladder, and it was decided to use injections. These were continued until May, blood being always present in variable quantity in the urine.

I may here mention that the only injection which had any

effect in controlling the hæmorrhage was one containing fifteen grains of alum to the ounce of water. Meanwhile I had become more and more suspicious of the existence of some morbid growth, and was confirmed in my opinion by that of Dr. W. Roberts, to whom I sent some specimens of the urine. On May 24th he wrote to me as follows: "The deposit contains large numbers of round-tailed and spindle-shaped cells, deeply stained with hæmatin. Mingled with these are numbers of red blood discs, mostly of withered appearance, but infinitely few in proportion to the deep colouration of the urine. This point reminds me of the state of the urine in cases of intermittent hæmatinuria ..... My impression at present is that there exists one or more polypoid growths."

Early in June I found in the urinary deposit a small fleshy particle the size of a small pea, in which, under the microscope, I could distinctly trace bloodvessels. An operation was now sanctioned, and on July 11th, the patient, having been placed under the influence of chloroform, I rapidly dilated the urethra, and found, just within reach of my finger, a large soft mass growing from a pedicle attached to the base of the bladder. Seizing this with forceps, I dragged it, with a portion of the bladder, through the urethra, transfixed the pedicle with two sharp hooks, and separated it with scissors. Some adjacent rough patches were removed with the curette, and the stump was freely swabbed with tincture of iodine, and, all bleeding having ceased, returned into the bladder, which was then injected with iced water, with about 10 per cent. of tincture of iodine. By this means another mass nearly as large as the one removed was washed out, it having probably been detached during my efforts to pull the tumour through the urethra. The size of the entire growth was about that of a tennis-ball. After the operation the patient passed water naturally every four to six hours. The temperature and pulse were normal throughout, and all trace of blood disappeared on the fifth day. She progressed favourably until July 21st, when at 4 A.M. violent hæmorrhage commenced, the bladder evacuating large clots every few minutes. Ice was applied over the lower abdomen, and introduced into the vagina, injections of iced water and tincture of perchloride of iron were used, but no means availed to control the bleeding until gallic acid in doses of forty grains, twice repeated, were administered. The first dose was vomited. I adopted this course, having found it immediately effectual in severe hæmorrhage after extraction of a tooth. No recurrence of bleeding took place, and with the exception of great exhaustion and some anæmia the patient's recovery from this time was uninterrupted. Mr. Butlin kindly examined a portion of the growth for me, and describes it as "a very good specimen of papilloma with a fibrous basis." "It appears," says he, "to be much larger than is usually the case." I believe this disease is very rarely met with in so young a subject, but I am strongly of opinion that in all obscure cases of hæmaturia in the female rapid dilatation of the urethra as a diagnostic measure should be resorted to. I have never known any permanent inconvenience result from such dilatation, for whatever purpose adopted; and it is evident that if such means had been earlier agreed to in this case my patient would have been saved much misery and suffering, and some considerable risk to life from the repeated and long continued hæmorrhages which occurred.

Leamington.

A MEETING in connexion with the proposed Convalescent Home at Clacton-on-Sea was held on the 2nd inst. in the Shire Hall, Chelmsford, to consider the trusts proposed to be inserted in the deed relative to the Home. It was arranged that inmates should pay ten shillings per week towards their maintenance, that a separate cottage for the reception of persons who have been suffering from infectious disorders be attached to the Home, and that the Home be handed over to the Nursing Institution finished, furnished, and free from all debt. The trusts gave power to mortgage the property, sell it, purchase other land and to invest any money the trustees might possess in Bank stock, India stock, or in the County stock to be issued under the Essex County Loans Act.

AT the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on the 9th inst., Sir W. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £54 was distributed among the several applicants.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. IV. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF CALCULUS OF OXALATE AND PHOSPHATE OF LIME REMOVED BY LITHOTRITY AT A SINGLE SITTING; SINGULARLY LONG DURATION OF SYMPTOMS, WITH REMARKS UPON AN IMPROVED CLOVER'S EVACUATING BOTTLE.

(Under the care of Mr. BERKELEY HILL.)

CASE 1.—C. B——, aged twenty, painter, was admitted on June 20th, 1882. Had passed urine in bed every night during sleep from five years old till about one year ago. Pain at end of the penis had been severe at times after passing water since he was eight years old. For some years the pain had not lasted more than a few seconds. When he had a cold he had pain also above the bladder. As long as six years ago had calls to void urine every two hours by day, but only once by night. Riding in a country cart made no difference. When about eight years old he would pass blood with his urine, sometimes as much as a teaspoonful; this happened about every two or three months. Most of the blood came after the urine. When admitted the blood never exceeded two or three drops at a time. Running or jumping caused blood to flow after passing water and the pain is greater on such occasion. The urine had been habitually cloudy. In other respects his health had always been excellent.

On admission the urine was found to be free from blood, acid, sp. gr. 1020, and depositing a large amount of phosphates, with some mucus. On sounding, a small calculus was struck.

On June 28th the patient was put under ether, and a small very hard stone was crushed, and the débris removed by means of a modification of Clover's wash-bottle. The patient vomited a little after the operation, and that evening the temperature rose at 8.30 P.M. to 100·2° F., falling in the night to normal range, and again rising to 100·4° F. at noon on the 29th. Thenceforth his convalescence was uninterrupted. The patient slept well, felt little pain in passing water, and the urine charged with blood for two days became free on July 1st. It also gradually lost its mucous turbidity, and could be retained for six hours without distress.

On July 11th he was carefully sounded, and no stone was felt. On the 15th, having been up for six days walking about the ward, he was discharged. The débris of the calculus (part having been inadvertently lost) weighed thirty-five grains, and consisted chemically of phosphate and oxalate of lime. No uric acid was found.

CASE 2.—T. M——, aged twenty-two, was admitted June 22nd, 1882. From early childhood up to thirteen years old the patient used to pass urine frequently into his trousers or in bed. He had no pain then. Of late he had had to rise once or twice at night. The stream often suddenly stopped; it then would dribble, and thus became again free. This caused no pain. Four years ago, without apparent cause, the patient had an attack of great frequency of micturition, and the urine, which was blood-stained, dribbled away. Pain was felt at the end of the penis in the attack. After this attack passed off the patient was for three years singularly well, passing water three or four times a day and once or twice at night. In this period the stream occasionally stopped suddenly, and the evacuation of the bladder was finished by dribbling, but there was no pain connected with the act. On the 11th the micturition again became frequent, very little urine passing at a time, and only by straining. No pain after passing urine, and no blood in it. This condition became worse, and he applied for relief as an out-patient. The urine was examined, and much albumen found, so no sound was passed.

On admission, rest in bed for a few days removed the straining desire to pass urine, and the albumen almost dis-

appeared. The urine was acid; specific gravity 1022, turbid with mucus.

On July 6th a stone was crushed with Bigelow's lithotrite into fragments, and this instrument having been withdrawn comminution of the fragments was attempted by the ordinary scoop lithotrite. But the fragments were too hard to yield to the male-blade of this instrument, and Bigelow's was used again for the whole crushing. The modified Clover's wash-bottle was employed in this case also for evacuating the débris, and the whole of the stone was extracted. The operation altogether occupied about three-quarters of an hour. The patient suffered hardly at all after the operation. The temperature remained normal until July 9th, when, unperceived by the nurse, the patient left his bed to go to the watercloset, where he found that suddenly difficulty in passing water and pain came on. At noon a slight shiver occurred, and the temperature rose to 105·2° F. in the evening, to fall slowly through the two following days to normal range, from which thenceforth it never departed. Blood disappeared from the urine on the second day after the operation and did not reappear during the fit of pyrexia. The urine retained a copious mucous cloud for more than a week after the operation; but the bladder, tested by the catheter, after ordinary micturition was found to have no residuum of urine. On the 28th, as a good deal of mucus remained in the urine, the patient was etherised, carefully sounded, and the bladder washed with the débris wash-bottle. But no trace of stone was discovered. During the patient's stay in hospital an indurated syphilitic sore developed in the glans penis with consequent multiple enlargement of the lymphatic glands of the groins. By cross-examination it was discovered that an opportunity for contagion had occurred three weeks before his admission into hospital. In order to watch the development of this sore the patient was kept in hospital until August 12th, and on his departure the micturition was quite natural; the urine was clear pale-straw colour, sp. gr. 1020, free from pus and albumen.

Of the débris, eighty grains were collected and were composed chiefly of oxalate of lime with some phosphate.

Remarks.—These cases of stone in young men are remarkable for the long, almost lifelong, presence of irritability of the bladder. But the structure of the calculi which were extracted indicates that the patients as children had suffered from oxaluria; and probably part of their sufferings were due to the irritating quality of their urine, from which at last a concretion formed that grew into a stone large enough to be detected by the sound. In the first case, it is true that blood had been discharged after the urine for many years, but it is difficult to believe that the small stone which caused his later sufferings had caused the hæmorrhage from the neck of the bladder throughout this time. The very moderate amount of suffering and immediate subsidence of the bladder's irritability which followed the crushing and exhaustion of the débris, and the rapidity with which recovery was afforded, are signal proofs of the advantage of freeing the patient of his stone at a single sitting. A few words may be devoted to describing the extracting bottle employed on these occasions. It is the result of various improvements of Clover's original wash-bottle most of which were suggested to Mr. Berkeley Hill by the late Mr. Clover himself, and it now forms an extractor more simple in structure and much shorter than Bigelow's or Thompson's (see fig. 1). The evacuating tube (fig. 2) measures only

FIG. 1.

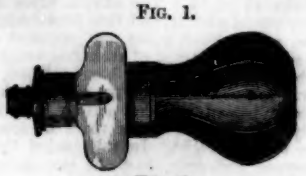
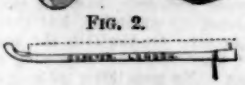


FIG. 2.



8½ in., and including the trap only 10 in., from the end in the bladder to the exit in the bottle; while Thompson's measures 14 in., and Bigelow's old pattern was as much as 25 in. Being perfectly straight, with the exception of the short curve at the beak of the tube, and divested of heavy taps and stopcocks, the apparatus is very easily managed with one hand. Further, it can be made at much less cost than the others. The cardinal principles of rapid evacuation of débris are—1. Width of tube, that the fragments may not need fine comminution, but even when large pass easily to the bottle. In the present case Nos. 25 and 30 of the French scale are those employed. 2. Shortness of tube, that the fragments may have only a short distance to travel before reaching the bottle and thus escape quickly beyond the in-draught of the reflux water into the bladder. 3. Good elasticity in the bottle, that the outward flow may be rapid and set in before the fragments stirred up by the injection settle again at the bottom of the bladder.

SEAMEN'S HOSPITAL, GREENWICH.

CARDIAC DISEASE; PROLONGED INTERMISSIONS OF CARDIAC ACTION; ANTE-MORTEM CLOT IN HEART AND AORTA.

(Under the care of DRS. CUFNOW and HALE WHITE.)

JOSEPH B——, aged forty-two, was admitted on July 11th, 1882, with a history of pain in the left side occasionally for two months, shortness of breath, and slight hæmoptysis. He had had rheumatic fever eleven years before. On admission the heart's apex beat was found in the fifth space outside the nipple-line. A double aortic murmur was present as well as a mitral systolic at the apex, with occasionally a presystolic also. The second sound was ringing at the base and the pulse collapsing. He left the hospital on July 25th, much improved. On Sept. 29th he was readmitted, under Dr. Hale White, complaining, in addition to his former symptoms, of frequent faints. The cardiac action was now found to be very slow, though variable (usually about forty per minute). Physical examination gave a result similar to that previously obtained, but the murmur antecedent to the systolic was now more marked and persistent. It seemed also to vary in its position in time in the cardiac rhythm; when the heart's action was very slow indeed the murmur appeared to occur in the middle of the interval between the cessation of the second sound and the commencement of the first, a distinct interval elapsing between its termination and the systolic sound; on the other hand, when the action became more frequent, the murmur was heard immediately before the systolic sound and running right up to it; occasionally when the heart began to quicken, it even seemed possible to hear both these murmurs at once, a very slight interval separating the one from the other. The patient was subject to frequent transient attacks of syncope, which caused him much distress. On the morning of October 7th, these attacks occurred with greatly increased frequency, and about 9 A.M. he presented the following symptoms:—For the first three-quarters of each minute the heart beat strongly and regularly, about thirty-three times, and then ceased abruptly and entirely for a quarter of a minute when its action again commenced, to repeat the same course as before, each cycle of action and intermission occupying a second or two over the actual minute. When the heart stopped, the face at once began to grow paler and paler, the respiration became slow, deep, and sighing, with occasional low murmurs of distress; towards the close of the period of cessation of cardiac action, the pupils (always rather large) became widely dilated, then the eyelids dropped, the muscles of mouth and hands began to twitch, and the head fell back, and then just when it seemed death must occur the heart recommenced its slow measured action. With the first beat the face began to flush, but the twitchings of mouth and hands did not cease until the fourth or fifth beat, when also the eyes opened, the head was lifted and the patient seemed as it were to return to life. Between the periods of intermission he was quite conscious, and dreaded the moment when, as he said, his heart would "pull" within his chest, and he would lose his senses completely. When visited half-an-hour later the attacks had passed off, and from that time till October 10th, when he died, they only occurred at irregular and infrequent intervals. The treatment consisted in the administration of stimulants—viz., alcohol, ether and ammonia, but during the thirty-six hours previous to the morning of October 7th, he was taking in addition five-minim doses of tincture of digitalis every four hours.

Necropsy.—Heart of rounded shape with much hyper-

trophy and dilatation of both sides, weight 19½ oz. Much atheroma and general dilatation of the ascending aorta, this condition extending quite down to the aortic orifice which measured nearly 4 in. in circumference. The aortic valves showed slight thickening and small calcareous nodules at their angles of junction. Immediately below the aortic orifice the wall of the ventricular septum presented a depression of 2½ in. from side to side, and 1½ in. from above down, the base of the hollow being formed by a fibrous membrane placed on a level with the inner lining of the right ventricle, but not bulging at all into that cavity. From the apex, where its base lay entangled among the columnæ carneæ, a large clot extended up into the aorta nearly to the top of the ascending arch. The base presented the usual pale yellow colour, and elastic, homogeneous texture of a clot formed just before death; on tracing it upwards that part lying near the aortic orifice became much tougher, darker in colour, and more fibrous, while beyond the valves, the part lying in the aorta was shrunken, flattened, brownish in colour, and when incised displayed a cavity full of dark grumous-looking matter with fibrous-looking walls. The clot had all the appearance of having been formed by accretion to the base, while the head became gradually more and more prolonged from its original place of formation at the apex of the left ventricle, so as ultimately to lie in the cavity of the aorta. Notwithstanding the presence of the murmur described above as to all appearance presystolic, the mitral orifice did not seem at all contracted.

GUEST HOSPITAL, DUDLEY.

CASE OF LIGATURE OF THE LEFT COMMON CAROTID ARTERY FOR HÆMORRHAGE.

(Under the care of Mr. M. A. MESSITER.)

THE following case is similar in its history and results to the one that was shown at the Clinical Society last October by Mr. Pepper.

R. R——, aged twenty-four, was admitted on Oct. 20th, 1882. On Oct. 11th he caught cold, and the left tonsil was found enlarged and inflamed; no swelling was visible externally, but during the two or three following days a fulness simulating mumps was observed on the left side of the neck and under the jaw, extending as far up as the mastoid process, but closure of the jaws prevented examination of the inside of the mouth and fauces.—Oct. 15th: Without any warning, profuse arterial hæmorrhage, to the extent of three pints came on; his voice, hoarse previous to the hæmorrhage, now became subdued to a soft whisper; the lips and conjunctivæ were blanched. Pulse 80, compressible. He complained of a feeling of suffocation, but the syncope was not alarming. It was noticed that the tumour in the submaxillary region disappeared completely after the hæmorrhage. Patient said that the blood appeared to come from the back of the left ear. Cough did not precede the hæmorrhage, and the blood was not mixed with pus or air; it was arterial, and formed a firm clot. For twenty hours after this the patient seemed convalescent, when another swelling in the exact site of the last was noticed, which, in two or three hours, was dispersed by a second hæmorrhage to the extent of two pints of arterial blood; the syncope was greater than before, and the patient was thought to be moribund; he rallied, however. On the 19th hæmorrhage again occurred, and he consented at last to be moved into the hospital.

After consultation with his colleague, Dr. T. E. Underhill, Mr. Messiter ligatured the left common carotid above the crossing of the omohyoid. Antiseptic precautions were observed. Catgut ligature was used, and cut short off. Two minutes after the vessel was ligatured there was facial paralysis on the affected side, but it passed off in two hours.

The man went on well until Oct. 26th, when he had a severe rigor, and a temperature of 105° F., and his evening temperature came down a degree each evening until Oct. 31st, when it stood at 100° F.

On Nov. 8th he had a similar attack, with a temperature of 103° F. These attacks may have been caused by some slight septicæmia. His general condition, however, was fairly satisfactory all through; the wound looked healthy all the time; he had no swelling near it, no discharge of collected pus, and no hæmorrhage. The only symptoms that occurred in connexion with the high temperature were weakness and sweating.—17th: Wound nearly healed, and the patient allowed to get up. He had gained in flesh since entering the hospital, and looked anything but anæmic. His mental condition was good. There was no headache, nor swelling about the neck or side of the jaw. The left carotid pulsated up to the point of the ligature, but hardly perceptibly on the other side. There was no pulsation in the facial artery of the affected side, and it was but slight in the left temporal. There was no paralysis or loss of sensation. A loud double aortic murmur existed, which did not exist when he was taken ill, and on his admission into the hospital only a faint aortic obstructive bruit was found.

Remarks.—I may add that the common carotid was chosen as the vessel to place the ligature upon, as it was thought that the close proximity of so many large branches would make it unsafe to ligature the external carotid. I fail to see how a distance of a quarter of an inch even could be obtained free from branches on the latter vessel, whereas the absence of all branches makes the common carotid so peculiarly the vessel to apply a ligature to.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Cases of so-called Erythema Gangrænosum.—The Pathology of Diphtheritic Paralysis.

THE ordinary meeting of this Society was held on the 9th inst., Professor J. Marshall, F.R.S., President, in the chair. The subject of Dr. Fox's paper on erythema gangrænosum was illustrated by some models from Guy's Hospital museum; and in addition to the microscopical specimens of the spinal cord in diphtheritic paralysis, showed by Dr. Kidd, some similar specimens were exhibited by Mr. Horsley.

A paper was read on two cases of so-called Erythema Gangrænosum, by Dr. T. COLCOTT FOX. The term erythema gangrænosum has been applied to cases in which the inflammatory patches presented very different degrees of severity, and were not all gangrenous. Case 1 was a lady, aged forty-seven, in whom gangrenous patches continued to evolve off and on from June, 1877, until the present time. The patches were limited to the regions of the chest and arms, and occurred over and over again about the site of former patches, sometimes for a time forming only on one arm, then on the other, and then about the chest, but a sort of symmetry was often kept up. The formation of patches was very frequent at first, but as the general health improved and the habit of intemperance was avoided, the patches were seen less frequently. She showed none of the ordinary signs of hysteria, but at one time had an attack of paraplegia lasting two or three months. Case 2 was a girl, aged seventeen, of an extremely hysterical and neurotic temperament, in whom severe inflammatory vesicating areas (not gangrenous) continued to form for many months. They occurred with fair symmetry over the body and extremities, but there was here also a marked tendency for the patches to recur about the sites of former lesions. In neither of these cases was there any cachectic condition sufficient to account for the severity of the lesions, and the surfaces healed fairly well. The question at issue is whether there exists an idiopathic affection consisting in the continued evolution of inflammatory areas of different degrees of intensity and often gangrenous, such as have been described under the term erythema gangrænosum, or whether these cases should not invariably be pronounced to be artificial. In support of the first proposition there are only five cases on record of a similar nature in which malingering has not been actually proved, but these cases are all surrounded by the greatest suspicion, for they occurred in females, generally young, and decidedly hysterical or eccentric. The sites of attack and mode of evolution of the patches was most peculiar; there was an entire absence of any enfeebling condition sufficient to account for the occurrence of gangrene, and at the same time a healthy reparative process went on; and the patches were such as might be produced by a caustic agency. Dr. Fagge's case of gangrenous patches occurring in a man in the last stage of tubercular phthisis, Charcot's

acute bedsores, and varicella and vaccinia gangrænosa were examined in support of the possibility., In opposition to the first proposition and support of the second there are a number of cases on all-fours with the others as regards site and mode of evolution of the eruption, the sex and character of the patient, &c., in which malingering has been proved from the simple erythema produced by mustard, and the excoriations brought about by rubbing, to the gangrenous patches caused by the application of nitric or sulphuric acids.—Dr. THIN referred to a discussion which lately took place at the Vienna Society of Medicine, upon a case shown by Dr. Neumann, of spontaneous gangrene of the skin in a young female. He described the change as commencing with discoloration of the epidermis, passing rapidly to the formation of a bulla and then to gangrene, the consequent sores healing very slowly. Neumann, Kaposi, and other dermatologists admitted the reality of the affection, which was disputed by the surgeons present, amongst whom Professor Billroth urged strong reasons against the probability of such a gangrene occurring in a healthy young subject, and maintained his opinion that the condition was artificially produced, although chemical analysis failed to detect in the sloughs any traces of acid, etc., likely to have been used for the purpose.—Mr. SAVORY instanced two cases under his care at present, showing that in certain subjects there is great proclivity to gangrene. One was a man about forty years old, in whom, after a compound fracture of the leg, gangrene occurred not only at the seat of the injury but also over a large surface of the thigh; and the other an older man, admitted into hospital with two areas of sloughing of the skin, each the size of the palm, following a slight contusion. In these and other cases of extensive sloughing after injury, he had generally found there was a history of alcoholic intemperance, and, therefore, it was probable that their tissues were debased and prone to gangrene. Dr. Fox's cases fell into a different category, being in women without such history and without manifest injury. Mr. Savory pointed out that the detection of the artificial use of caustics was facilitated by noting the shape of the patches, which showed greater irregularity in outline, especially of the lower margins (from the gravitation of the fluid) than is the case in patches of true skin disease.—Dr. BUZZARD mentioned a case of a young girl with hysterical paraplegia, in whom a hæmorrhagic bulla formed on the foot, which he attributed to defective nutrition. In another case, also of paraplegia in a female, whom he suspected of malingering, a bedsore was discovered on the trochanter, which he had no doubt was artificially produced, for the patient being closed watched, the sore rapidly healed, the paraplegia remaining.—The PRESIDENT inquired whether in his cases Dr. Fox had had the opportunity of examining the condition of the blood or of the urine, as indicative of any constitutional condition underlying the gangrene. He pointed out that the lesion differed from erythema in having no tendency to spread, and in one of the two cases the state of gangrene was not reached.—Dr. FOX, in reply, said that the case mentioned by Dr. Thin was doubtless one of this class. He had raised the question whether there was any constitutional peculiarity that could determine the lesion in these subjects. The simple bullous eruptions occurring in hysterical women belonged, he thought, to a different class. He had not been able to examine the urine, &c., in these two patients; and, although in one of them no gangrene occurred, it was obviously the same kind of case. He thought the term "erythema gangrænosum" should be discarded.

The next paper read was entitled, a Contribution to the Pathology of Diphtheritic Paralysis, by Dr. PERCY KIDD, in which facts are brought forward in support of the view that diphtheritic paralysis is founded on a distinct anatomical lesion of the spinal cord. The lesion affects the anterior horns, and consists in alterations in the shape of the motor nerve-cells, and in changes in their cell-protoplasm. The affected cells are, as a rule, more or less globular in shape, and devoid of processes. The changes in the cell-protoplasm are divisible into two groups. In the first, which is more common, the cell substance has become pale and indistinct, and the nucleus is either absent or only faintly visible. In the second the cells are more granular than usual, and often show a well-marked nucleus. In both cases the cell degeneration has an atrophic tendency. In some cases sections from special parts show a numerical atrophy of motor nerve-cells. These changes are not found throughout the spinal cord, but are limited to certain regions. The localisation of the nerve lesion corresponds with the distribution of the muscular paralysis during life. There is no distinct affection of the neuroglia. The changes are purely parenchymatous. A similar degeneration of the motor nerve-cells has now been found in fifteen cases—viz., by Vulpian in two cases, Déjerine in five cases, Dr. Abercrombie in seven cases, and, lastly, by the author in one case, which is the subject of the present paper. The disease may be described as a "polio-myelitis anterior." It is considered highly probable, if not actually proved, that the above lesion is a constant one, and is the immediate cause of the paralysis. Dr. BUZZARD said there could be no doubt that in the case described there was the condition of anterior polio-myelitis, but the author had come to too general a conclusion, since in most cases of diphtheritic paralysis there is disorder of sensation to quite as marked a degree as disorder of motion. The lesions described would not account for this, whilst in some cases the electrical reactions showed but little evidence of such marked lesions. He asked whether the nerve trunks had been examined.—Mr. PARKER asked in what way these changes differed from those met with in infantile paralysis, the outcome as to recovery in the two affections being so different. If the spinal change were as complete as in infantile paralysis how could recovery from diphtheritic paralysis be explained.—Dr. SEMON also considered that to regard diphtheritic paralysis as an anterior polio-myelitis was a narrow view. He instanced a case of bilateral recurrent laryngeal paralysis following an attack of pharyngeal diphtheria—a case shown to him by Dr. Carpenter—as evidence of medullary lesion. He suggested that in such a case the afferent fibres of the vagus had been influenced by the pharyngeal inflammation, and that the centres of the laryngeal nerves had been implicated in a reflex manner. The aphonia had developed some time after the diphtheritic attack, and had persisted for 12 months; and in such a case he should think lesions would be found in the floor of the fourth ventricle. Similar explanations might be given of the occasional involvement of the cardiac nerves following diphtheria; and he thought that the endeavour should be not simply to confirm the statements of previous observers, but to ascertain whether other changes existed than had been hitherto described.—Dr. DOUGLAS POWELL said there could be no doubt at all that in Dr. Kidd's case death occurred from involvement of the respiratory muscles in the paralysis due to the spinal cord lesion; and other cases, as those mentioned by Drs. Buzzard and Semon, pointed to central lesions. There are also cases of death from paralysis in diphtheria in which the lesion seems to be peripheral rather than central. He had been struck with the extreme anæmia of the subjects of this disease, who died with symptoms of cardiac paralysis; in one case the red corpuscles were only 14 to 17 per cent. in number, and very marked fatty degeneration of the heart had been found in some cases.—Mr. HORSLEY understood that Dr. Kidd did not limit the lesions of diphtheritic paralysis to changes in the cells of the anterior cornua; but there was no alteration of sensation in the case he recorded. The specimens he exhibited were forwarded by Dr. Mott of Liverpool, and showed vascular engorgement of the spinal cord and medulla, atrophy of the inner group of the ganglia cells in the anterior cornua of the lumbar enlargement, with a distinct increase in the substantia gelatinosa in the posterior cornua; the latter change probably causing disorder of sensation. He was unable to give clinical details; but the changes were confirmatory of those described by Dr. Kidd.—Dr. KIDD, in reply, pointed out that there were now fifteen cases of diptheritic paralysis on record in which these anterior cornual lesions were present. There was no disorder of sensation in his case. He had been unable to obtain any of the nerve trunks for examination; but Déjerine describes granular fatty changes in the anterior and posterior spinal nerves, and in the nerves going to the affected parts; and similar parenchymatous neuritis in the anterior, but not in the posterior, spinal nerve-roots. The spinal changes were very like those of infantile paralysis; and it is not unlikely that in cases of recovery the lesion is but transient. He admitted the force of the remarks of Drs. Semon and Powell, but had in the present case limited himself to the spinal cord.

MEDICAL OFFICERS OF HEALTH SOCIETY.

A MEETING of this Society was held at 1, Adam-street, Adelphi, on Friday, Dec. 15th, 1882, Dr. J. W. Tripe, President, in the chair, when a short paper was read by

Mr. S. R. LOVETT on the Illegal Occupation of Cellar Dwellings. A woman who was nearly dead from cold and hunger had been discovered in a cellar in Dudley-street. The cellar was a small rubbish hole, measuring 13 ft. by 9 ft. The woman had no right to be there; she did not lodge in the house; she was a tramp and a trespasser. A similar case had occurred two years before, when a woman was found dead in a cellar. Such cases occur through the front doors of tenemented houses being left open day and night. People walk in uninvited, sleep in the cellars and on the stairs, use the closets, and even ask for soap and water in the morning. They do not take possession of their sleeping places until night; and, as the Legislature has fixed the hours of inspection of dwelling-houses between 9 A.M. and 6 P.M., the sanitary inspectors are powerless to deal with them. Mr. Lovett, in conclusion, asked what remedy could be found to prevent such illegal occupation. In the discussion which followed, in which the President, Dr. Bristowe, and Dr. Bate took part, the opinion was expressed that the medical officer of health could take no action.

Dr. G. A. HERON then read a paper on the Tubercle Bacillus, of which the following is an abstract. Last June the author began to give attention to the clinical aspect of Koch's discovery of the bacillus of tubercle; sixty-two patients had come under his observation in whose sputa he had detected the bacillus. They were of both sexes, from ten to sixty-five years of age, of various occupations, and all unmistakably suffering from phthisis. In three of these patients he had at first searched the sputa for the bacillus unsuccessfully, but found it in two cases in the third week, and in the other in the seventh week. His experience of the sixty-two cases inclined him to the belief that the presence of these organisms in the sputum would sufficiently indicate the prognosis. Given a persistence for some weeks of fewness of the bacilli of tubercle in the sputum, that case will probably run a long course; on the other hand, given the persistence of a large number of bacilli early in the history of a case, that case will run a short course and end in death. In the cases most rapidly fatal, the bacilli were grouped in numerous masses. Grouping may occur when the bacilli are few as well as when they are numerous, but the feature alluded to is that where the masses of bacilli are numerous they give a characteristic appearance in almost every microscope field. Three or four bacilli in a field indicate the presence of few of these organisms, thirty or more in a field must be regarded as numerous. Koch's work was undertaken in the interest of the public health. He found the sputum when dried, as it may sometimes be seen drying upon a hospital floor, to be as surely fatal in its results when inoculated as when he inoculated with the bacillus obtained by cultivation of the organism from tuberculous tissue. Taking his views as true, we must admit that the expectoration of a consumptive person probably always contains a poison of a most virulent kind. After referring to the deposit of tuberculous sputum upon handkerchiefs and other linen, the author suggested that this might be a possible, if infrequent, source of infection; but Koch has indicated other possible sources of infection, for he has demonstrated the presence of tubercle in animals with which man comes in frequent contact. The question How does phthisis spread among mankind? is one of the most difficult to answer, but the explanation must be sought for in the light which Koch has shed upon it by his brilliant discovery.—In the discussion which followed, the President, Dr. Bristowe, Dr. Corfield, and Dr. Samuel West took part. Some interesting microscopical specimens of tubercle bacilli were exhibited by Drs. Heron and Samuel West.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Dec. 21st, 1882, Mr. R. Walker, President, in the chair.

Mr. GUBBINS exhibited specimens from a patient in whom existed Complete Absence of Left Kidney and Supra-renal Capsule, Rudimentary Left Lobe of Liver, &c. The patient, a man aged twenty-four, had been under the care of Dr. Branson, in the Sheffield Public Hospital, where, on Nov. 16th, he had been admitted, suffering from anæmia, following a severe attack of hæmatemesis. The vomiting of blood recurred several times, and he died at the end of a fortnight. The patient had been in India for two years and a half, had drunk freely, had several attacks of ague, and had been discharged from the army for enlarged spleen. At the post-mortem examination the following condition of parts was found:—The liver weighed 2 lb. 6 oz., and consisted almost entirely of the right lobe; microscopical examination showed moderately advanced cirrhosis; the spleen weighed 2 lb. 2 oz., and was tough on section; the right kidney weighed 13 oz., but was otherwise normal in appearance. The left kidney was entirely absent, neither was there supra-renal capsule nor ureter; there were many pints of clear fluid in the peritoneal cavity; the lungs were healthy; the heart weighed 14 oz.; there was only one ridge and one opening (right) in the bladder; there was no malformation of any part of the genital organs discovered. Mr. Gubbins remarked on the interest attaching to this case from the absence of the left kidney and supra-renal capsule, as well as the rudimentary condition of the left lobe of the liver, and said that in 1878 Dr. Brenner (Virchow's *Archiv*) had collected records of forty-eight cases of congenital absence of one kidney; but in all these cases, except five, the supra-renal capsules were present. Dr. Brenner also stated that in one-third of his series of cases there was some malformation or arrest of development in one or other of the genital organs.

Dr. DYSON exhibited the morbid specimens from a patient who had suffered from Ovarian Cystic Disease. The woman, aged thirty-five, was delivered of a weakly child two weeks before her death. The cyst was simple, unilocular, and filled with pus; it was tapped a fortnight before death and eleven pints of pus removed, but had rapidly refilled. The patient suffered from capillary bronchitis and pneumonia ever since her confinement, and this, together with great exhaustion, had never permitted an opportunity for ovariotomy. Some recent peritonitis was present in various situations, but in each of them at a considerable distance from the trocar wound, which was quite healed. A great point of interest in the case was the condition of the lower lobe of the left lung; this was small, very tough, and fibrous; the bronchial tubes, both small and great, were dilated, and in many instances cretified. The breath of the patient during life was peculiarly offensive.

Dr. KEELING related the particulars of a case of Puerperal Tetanus. With the exception of some flooding, to which the patient had always been liable in her confinements, parturition in the present instance was normal, and had been followed by a satisfactory recovery up to the tenth day. Symptoms of lock-jaw manifested themselves on the eleventh day after labour. The patient died in a paroxysm of apnœa three weeks after her confinement, and on the ninth day after the first appearance of tetanus.

Mr. A. JACKSON exhibited a Portion of Catheter removed from the Male Bladder by him the same day by the ordinary lithotomy operation. The piece of flexible catheter was thickly coated with phosphates.

Mr. E. SKINNER related particulars of a case of Retroversion of the Gravid Uterus. The patient, aged nineteen, was in the third or fourth month of pregnancy, and was on September 10th suddenly seized with abdominal pains and feelings of faintness and sickness. Later on, a midwife detected a hard swelling at the mouth of the vagina; and on September 15th Mr. Skinner first saw the case. The patient was then suffering great pain, the abdomen was distended, and she was pale and faint. He detected at the orifice of the vagina a firm round tumour about the size of an orange, pressing upon the perineum and descending the anus; this was the fundus uteri, and the os was situated above the pubes. An attempt to pass a catheter along the distorted urethra failed, but later in the day was successful. No urine had been passed since the 10th. Attempts at replacing the uterus caused such distress that they were not persevered with then, but later in the same day, when the bladder had been emptied, with the patient in the knee-elbow position, it replaced itself without difficulty. On the 17th there was recurrence of pain and distress, and the uterus was again found to be retroverted. It was again replaced, and a Hodge's pessary introduced to support it. On the 18th she was delivered of a four months' fœtus, and made a good recovery. Mr. Skinner stated also that, a month later, he found retroflexion, which he replaced, and for which she still wears a pessary.—In the discussion which ensued, Dr. Keeling, Dr. Martin, Mr. Jackson, and Dr. Dyson took part.

THE Local Government Board has sanctioned the proposal of the Fulham Board of Guardians to borrow £45,000 to meet the cost of the erection of a new infirmary.

Reviews and Notices of Books.

A Treatise on Surgery; its Principles and Practice. By T. HOLMES, M.A. Cantab., Surgeon to St. George's Hospital. With 418 Illustrations. Third Edition. London: Smith, Elder & Co. 1882.

MR. HOLMES may fairly be congratulated on the fact that a third edition of his book has been so speedily called for. This is in itself sufficient evidence that it is felt to meet the want of students. The literary ability of the author is acknowledged by all, and the style in which the volume is written is such as to justify his reputation. He has had, too, a long experience at St. George's Hospital, and is qualified to speak with authority on points of surgical practice; moreover, his position as a teacher, and more recently as an examiner, has made him well acquainted with the difficulties of students. This edition has been carefully and thoroughly revised, and while Mr. Holmes has forborne to introduce the novelties of surgical theory and practice, he has attempted to incorporate all those real and generally accepted advances that have been made during the last few years. As before, the work is well produced; it is clearly printed, on good paper, and the illustrations are both numerous and good. A strange error, however, has been allowed, evidently by inadvertence, to creep into one of them. On page 843 a woodcut to illustrate the operation of tapping a hydrocele is introduced, and the surgeon is represented as holding the trocar in his *left* hand. Mr. Holmes speaks in no ambiguous terms of the value of Mr. Lister's mode of treating wounds. These are his words: "I cannot but express my own strong conviction of the value of the method of dressing wounds which Mr. Lister has introduced. I have frequently ascertained by thermometric and other observations, and pointed out to others, the perfect immunity from traumatic fever which in some cases follows even the gravest injuries or operations thus treated;.....and on that account I advocate the use of the system, as well as on account of its utility in hospital practice; for it necessitates the dressing of important cases by the surgeons or house-surgeons themselves, and almost excludes the possibility of any subsequent inoculation." The style in which Mr. Holmes has chosen to write his book appears to be not specially well adapted for precision of statement, and as we have glanced through the work some points in which this want of accuracy and incompleteness of detail have appeared to us important have arrested attention. We indicate them here in the hope that they may be remedied in a future edition. Thus in reference to the antiseptic treatment of wounds no stronger solution of carbolic acid than one in forty is anywhere mentioned, and this is recommended for the cleansing of wounds already made, and for use in the spray producer. The same lotion is also stated to be efficient for cleansing putrefying sinuses. The "six or eight" layers of antiseptic gauze applied as the dressing are stated to be covered "with a light macintosh cloth which surrounds and overlaps the whole, in order to prevent the discharge from saturating the gauze." The directions for securing free drainage are equally wanting in accuracy: "Drainage of putrefiable matters is therefore secured by insertion into the wound, in any convenient part or parts, of a drainage-tube, or a piece of lint, or skein of horsehair rendered antiseptic by immersion in carbolised oil; but the drain must not project beyond the antiseptic dressing any more than the 'protective' must, otherwise they would serve to conduct the undiluted atmosphere to the wound." The "deep dressing" is nowhere mentioned at all. The proper mode of preparing antiseptic catgut ligatures is also a matter which Mr. Holmes does not describe. Iodoform is not mentioned as an antiseptic agent; even Esmarch's striking results are not recorded. This agent is now so widely used that the student may fairly expect to find in his surgical text-book some allusion to its mode of application and uses. Since Mr. Holmes is able to advocate the use of the antiseptic treatment, it is a pity that he did not describe all its details with more precision. We are surprised to find Mr. Holmes teaching that compound fractures "unite in a very different manner from simple"; for while it is no doubt true that they are often attended with suppuration, sloughing, necrosis, and other complications, yet there is no *essential* difference in the process by which the break in the bone is made good. Lymph is exuded in both cases; this lymph comes from the same tissues, and it organises into bone in each case alike; and in very many instances either Nature or art converts a compound into a simple fracture. We would not conceal from the student the obvious and oftentimes important differences that are met with in some cases; but is it not of chief importance, at any rate at first, to insist on the *uniformity* of Nature's processes, and only after this has been realised to point out the variations which occur, most often as the result of preventable conditions? An omission and an evident oversight in this same chapter will not escape notice. Nowhere do we find any reference to the blebs which to the uninitiated appear so threatening in many cases of fracture. Their frequency of occurrence and their innocuousness make them worthy of notice; while the fact that they are of use in enabling the surgeon to diagnose a fracture when complicated with great œdema preventing proper examination of a bone, clothes them with actual importance. The error is in the statement that among the disturbances of health which may cause delay in the union of a bone, "disease of the kidneys, leading to a phosphatic state of the urine," is common. Mr. Holmes does not require to be reminded that excessive excretion of phosphates is never due to functional or structural disease of the kidneys, but to excess of those salts in the blood; while in the majority of cases in which phosphates are deposited from urine, the cause is to be found in deficient acidity of that excretion. In discussing the question of the passage of foreign bodies into the larynx, Mr. Holmes expresses his conviction that this may occur during swallowing, "without an inhalation." In support of this view he cites two cases, one of which is that of an adult, who "got a large piece of rabbit bone into the upper part of the larynx in consequence of laughing whilst he was eating soup." This appears to us to be an excellent and typical example of just the reverse, for can it be doubted that the piece of bone was drawn into the larynx by the forced sudden inspiration which followed the succession of expulsive expirations constituting the laugh?

As another instance of ambiguity that should be remedied in the next edition we would refer to the description of the lesion in Pott's fracture: it is not distinctly stated whether the dislocation is complete or partial, but we can well believe that the student would understand the phrase, "the astragalus is separated from the tibia," as applicable only to a complete dislocation of the joint. We regret to see that the term "cancroid" is applied by Mr. Holmes to "locally malignant" tumours. Such a use of the term is likely to give rise to serious misunderstanding; for it was originally employed to designate epithelioma, and is now commonly used in that sense, especially by French and German pathologists.

The chapter on Diseases of the Breast appears not to have received such careful revision as some others, and to be hardly worthy of such a very important, and withal frequent, group of affections. The etiology of "lacteal abscess" is thus described: "The common cause of inflammation of the breast is irritation in suckling, and usually in women who persist in doing so when in too weak a condition to bear it. Its cause is often to be found in an imperfect development of the nipple. The woman is generally a primipara, and the abscess usually occurs within a month after delivery." Each

of these statements is no doubt true, but yet we think they are so made as to convey a wrong impression to the student, if indeed they do not confuse him. A deformed or diseased nipple obstructing the outflow of the milk will lead to abscess usually early in lactation, and often of course in primiparæ, but this form has nothing in common etiologically with that due to over-lactation, and which occurs most often after months of suckling. The stage of milk congestion which precedes that of inflammation and abscess, and the proper treatment of which is so successful in preventing the latter, is not mentioned, nor is the very useful power of belladonna to check the lacteal secretion referred to. Chronic abscess of the breast is described as only occurring at puberty; we have not been able to find any mention of it as associated with lactation or abortion, or occurring after puberty. Mr. Holmes has no doubt seen chronic abscesses occurring at puberty, or he would not have described them, but it has been our lot to see only acute abscesses at that period, and these have been nearly invariably superficial to the gland, and just beneath the areola. And we can hardly believe that Mr. Holmes is not familiar with the small chronic abscesses occurring often long after delivery or abortion, in women later in life, which at times are so difficult to diagnose from malignant tumours. The importance of these is such that Mr. Erichsen gives a special table of diagnosis. Apart from this, however, Mr. Holmes has omitted to give any directions for the treatment of these chronic abscesses. Again, the subject of tumours of the breast is incomplete. The work of Dr. S. Gross appears not to have been appreciated by Mr. Holmes, as he gives only the imperfect pathology of more than ten years ago, and states that cancer sometimes occurs "in the form of a defined mass separated from the gland by a distinct capsule." The most valuable sign of cancer of the breast—its fixity in the gland—is omitted altogether, while prominence is given to that popular but unreliable symptom, "lancinating pain in the chest and neck and down the arm." In the discussion of the cases suitable for operation, the facts of the age of the patient, the variety of the cancer, and its rapidity of growth, all of them of prime importance, are not alluded to at all.

The Journal of Mental Science. January 1883.

THE chief original articles in the current number of this journal deal with those quasi-philosophical and general subjects which alienists delight in. Dr. Ireland discusses the character and hallucinations of Joan of Arc, Dr. Mercier the data of alienism, and Dr. Nicholson the past and present state of society in relation to criminal psychology. Pathology is represented by a paper on general paralysis by Dr. Wigglesworth, and some cases by Dr. Major and Mr. Fletcher Beach. Dr. Cameron considers the philosophy of restraint in the management and treatment of the insane, and arrives at conclusions which the editors severely disclaim, and Dr. Davidson describes some interesting observations on cannabis indica and syphilis as causes of insanity in Turkey, Asia Minor, and Morocco.

The Practitioner. January 1883.

THE first paper is an interesting and thoughtful discussion of some points in relation to the sounds of the heart by Dr. Broadbent. The methods of treating ulcers are considered by Dr. Whitson. A case of pernicious anæmia is described by Dr. Hobson, who has added brief accounts of forty-five other cases collected from the journals, but unfortunately he has omitted to state the source of each.

PRESENTATION.—At the annual dinner of the Crickhowell Rifle Volunteers held on Jan. 1st, a presentation of plate was made to Assistant-Surgeon Hill.

New Inventions.

ALLEN'S STEAMER FOR POROPLASTIC FELT JACKETS.

MESSRS. J. ALLEN & SON are well known as the makers of simple and cheap metal medical and surgical appliances, such as bronchitis kettles, sprays, and baths of various kinds. They have now introduced an apparatus of this description for the softening of poroplastic felt jackets. It is made entirely of tin, and of such a size as to take the largest spinal jacket. It consists of two cylinders, of which one slides into the other, the exact fit being secured by binding the lower edge of the inner cylinder with soft felt. When in use, about a quart of water is poured into the lower cylinder, and the jacket to be softened is placed in it on a perforated tray, and over this the upper or inner cylinder is placed. A spirit lamp is then lighted below the whole, the water evaporated, and the felt softened by the hot steam. The cheapness and simplicity of this apparatus will, we believe, commend it to those surgeons who use felt splints and jackets.

ALLEN'S SPONGE BOWL WITH DRAINER.

THESE sponge bowls are made of enamelled sheet iron, and are very durable and light. They are specially intended for use in hospitals.

A NEW URETHRAL SYRINGE.

MESSRS. J. G. INGRAM, of Hackney Wick, London, have submitted to us a new form of urethral syringe, which they have made at the suggestion of Mr. B. Squire. It consists of a bulb of red rubber, two sides of which are rigid and flattened; the nozzle is of glass, and is closed by a rubber cap. The advantages claimed for this syringe are that it can be very easily used with one hand, readily filled or emptied, and can be conveniently carried full of fluid in the waistcoat pocket. The common glass syringes in ordinary use are frequently so imperfectly made as to be almost useless, and this rubber syringe appears to be an improvement upon them.

CHARGES AGAINST MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—Whatever may be the result of the Hounslow inquiry, the sad circumstances culminating in the suicide of the late Dr. Edwardes very pointedly direct the attention of medical practitioners to the ever present and real danger they are subject to, of charges of immorality or indecency being brought against them by hysterical and erotic female patients. A medical man cannot be too cautious when dealing with young married or unmarried women. When a morbid thought has once seized upon a mind debilitated and weakened by disease, who can answer for the result? A complete and coherent delusion may be created with lightning speed in such hysteria-affected brain, and so convincing may be the apparent chain of evidence, that a recognition of mania might never occur, or, at any rate, not until an unsullied reputation has been irretrievably ruined and undone. Accusations of this kind made by female patients against their medical attendant should always be entertained with the greatest caution, and ought to be very carefully investigated, for I have known conviction in a court of law follow, on more than one occasion, charges which were afterwards found to be entirely baseless and imaginary.

JAMES GREENWOOD,
Barrister-at-Law.

January 9th, 1883.

THE LANCET.

LONDON: SATURDAY, JANUARY 13, 1883.

DIVERS perils beset the professional life of a medical practitioner, but there are few, if any, so difficult to escape as the hot and scathing breath of scandal, through the half hysterical and half vicious calumnies of women. It is cause for sincere congratulation and thankfulness that the proportion of instances in which this perpetual and universal danger to which members of our profession are exposed is signalised by a catastrophe, is so small as to be almost insignificant. When, however, a scandal *does* occur, it is notorious, and the effects it produces are calamitous in a degree which seems to be enhanced by the fact that medical men habitually incur the direst risks, and, except in the rarest instances, with impunity. Nevertheless, it cannot be disguised that the practitioner is always very much, and in a most important sense, at the mercy of his female patients. Even though the wholesome and expedient precaution of *never* seeing a woman alone be rigorously adopted, it is impossible to assure the character against aspersions which do not need to be clearly defined in order to render them damaging. It is only too true that whatever may be the ending of a slanderous assault on the reputation of a medical man he cannot fail to be the sufferer, unless, indeed, the most fortuitous circumstances should combine to clear his character. We have at this moment in recollection a case in which a charge was brought with every appearance of plausibility by a young woman against a hospital physician; and in such a way that, but for the spirited friendliness of his colleagues, he must have fallen a victim to the calumny, when, by the most wonderful good fortune, the true nature of the imputation was suddenly and unexpectedly made apparent by the patient developing an attack of acute mania within a few hours of the narration of her perfectly coherent and precise story. It is seldom indeed that a medical man so placed has his character so promptly and triumphantly vindicated.

As a matter of fact, the presumption is always against the truth of any assertion made by a female patient maligning her "doctor." It is in the highest degree improbable that any man who has passed through the training indispensable for a medical qualification should—unless he be insane—so far forget his position, or be affected in such a manner, as to commit himself. Nothing short of the most conclusive evidence ought to suffice for the proof of guilt in the case of a qualified man so situated as to be the subject of an imputation. The whole conditions of a medical or surgical procedure are incongruous with the bare idea of offence. We do not hesitate to declare that, except on the clearest and most incontrovertible evidence, we would not believe it possible that a brother so placed should offend. On the other hand, nothing is more likely—we had almost said natural, but let us rather say morbidly probable—than that a woman affected with any of several maladies which call for surgical interference, should develop one of those prurient states of mind which are, indeed, *symptomatic* of the diseases to which we allude, and become the victim of a characteristic delusion of which the medical man in attendance is readily made the primary figure. Knowing these facts, patent as they must be to every member of the profession, and recognising the besetting peril of practice among women, it is inexplicable on the one hand, that medical men should ever neglect the precaution of having a trustworthy female witness present during the whole of every necessary examination or operative proceeding; and on the other hand, that any member of the profession should for one moment cherish an evil thought of a brother practitioner, or entertain a suspicion of his integrity while the imputation cast on his honour is as yet unproved. The danger of a baseless charge is so great that no man should despise or underrate it; and the improbability of actual wrong-doing is so high that no reasonable person should entertain a belief in the fact of its occurrence so long as there remains room to doubt it. We cannot too strongly insist on the duty of protecting ourselves, and defending others from the least breath of scandal. No medical man is justified in trusting to the honour of his patient. Setting aside the possibility of a malignant purpose, it should be distinctly borne in mind that no woman who suffers from a uterine or ovarian trouble of any kind, or who is the victim of hysteria or mental disease of whatever class or description, is safe from the sudden development of a psychological reflex that may easily take the form of a personal delusion which shall place her medical attendant in an equivocal position. This contingency, which need not involve any overt or recognisable disturbance of the intellectual faculties as a whole—and which may therefore lead to the fabrication of a perfectly coherent and circumstantial story—does not appear to be generally understood and anticipated. The present is not—unhappily—an inopportune moment to remind the profession generally of a fact which is continually present to the mind of the alienist, and of which lunacy practice affords frequent and conspicuous examples. Looking to the facts of the case, it is, indeed, surprising that practitioners who are almost daily placed in a position of extreme delicacy enjoy a large measure of immunity from the consequences of a danger which perpetually overshadows them. Let him that thinketh he standeth in no peril of this description take heed lest he fall a victim to its toils.

WE have so often sought to teach the lesson that it is a false economy to postpone the adoption of measures for the prevention of epidemics, that we should hardly recur to it again at present were it not for two items of intelligence which have recently been made public. One is that the Bangor Urban Sanitary Authority have issued a summary of the expenditure incurred in their unsuccessful endeavours to stay the progress of the late epidemic of enteric fever. In this instance the total expenditure for the past half-year, including £1000 which was covered by a public subscription initiated by the bishop of the diocese, and which went towards the expenses of the temporary means of isolation, amounted to £4000, to cover which it was necessary to make a rate amounting to four times the usual amount. The other announcement is that Accrington, being now free from a disastrous epidemic of scarlet fever, which killed one hundred and twenty children, finds that in school

pence alone there has been a loss of about £1000. These two amounts can, of course, only be regarded as affording some slight indication of the total loss which has been incurred in the two districts in question, but they may suffice for that purpose. If, however, £4000 were spent in Bangor merely to stay the progress of an epidemic which, in and around that city, attacked some five hundred persons, what must have been the total loss which resulted from the sickness and death produced? Amongst the other items which must be taken into account is the loss of trade due not only to actual sickness of breadwinners, but to the fact that the public were scared away from places of business, hotels, and lodging-houses. It would be almost idle to venture a guess at the total sum thus lost to Bangor and its neighbourhood. Some of the loss incurred is of no temporary character. The sick may resume their occupations, business may return, and visitors may again frequent the hotels, but there remain the households from which members who earned a livelihood for others have been removed by death, and in the case of enteric fever it is unfortunately those who are in the vigour and prime of life who are the most subject to attack. One single fatal case of enteric fever has often sent a whole family to the workhouse, there to be maintained at the public cost for many a year to come, and an epidemic such as that we are referring to can hardly have failed to have produced cases of a very similar, if not of a precisely identical, character.

In the case of scarlet fever adults are not so often attacked as are young children, but amongst a population of artisans the amount of sickness and death resulting from an epidemic of that disease becomes almost ruinous in its costliness. If, in Accrington, one hundred and twenty children died, we shall hardly be over-estimating the total attacks if we put them at ten times that number; indeed, they were probably far more numerous, and the mere cost of such an outbreak in the necessary attendance on and relief of the sick, to say nothing of the expenses following in the fatal cases, must represent a loss amounting to many thousand pounds sterling. And, after all, the money loss is but a minor consideration.

Still, we would ask, How is such needlessly extravagant local expenditure to be curtailed? Enteric fever, we have no hesitation in asserting, never prevails as an epidemic in localities where sources of excremental contamination of air and water are absent. But if water sources are liable to a pollution which may at any moment become a specific one, if public sewers receiving the poisonous evacuations of early cases, whether imported or not, are ill-constructed or ill-ventilated, or in unbroken communication with the interior of dwelling-houses, then an impending epidemic can hardly be stayed. Immediate and early isolation of a first attack in a hospital, where all infectious matter would at once be destroyed, may perhaps still save the district, but at Bangor even this had not been made available by the sanitary authority.

In the case of scarlet fever it is to proper isolation and disinfection that we must specially look, and ample powers as to this were given to sanitary authorities as far back as 1866. Disinfection, it is true, is often carried out in some form or other, but so long as the source of the infection—namely, the patient himself—remains in the house, its utility, especially in our large centres of population, is at best but doubtful. Means of isolation are, however, different, and in view of the experience now available, we trust that not only Accrington, but all other sanitary districts, will see that they provide themselves with this safeguard. Where suitable hospitals have been provided by sanitary authorities, children suffering from scarlet fever have been admitted in their thousands, and this to a large extent from houses so circumstanced that the question of compulsory removal could never have been entertained. Such buildings cost money it is true, but only in the same sense that a premium for a fire insurance costs money. One, like the other, provides those who pay the necessary annual pittance with a great means for meeting a calamity which would otherwise overtake them, and we cannot too strongly urge the more general provision of the needed means of isolation which as yet has so rarely been entertained until districts have learned the experience of the man who waited until he had lost his horse before locking the stable door.

THE practice of medicine is based upon pathology, but the two departments of medical science rarely correspond in their development. Each is at once ahead of and behind the other. There is much that is well established in practice of which pathology has not yet supplied the explanation. There is still more in pathology which has as yet no practical application. But as medicine is an art as well as a science, the application of each new scientific fact is eagerly sought for, and the more earnestly when the fact is one which relates to a disease at once frequent and formidable. At the present time the question is being asked on all sides, What is the practical value of the discovery of the organisms which seem to be so intimately connected with the formation and growth of tubercle? A decisive answer will probably not be long deferred, for the question is engaging the attention of many who are well qualified to search for a reply. Already in Germany and Switzerland answers have been attempted, but between them there is not perfect concord.

In the *Berlin. Klinische Wochenschrift* (1882, No. 45), BALMER and FRAENTZEL have given an account of the examination of the sputa in one hundred and twenty cases of phthisis. They found the bacillus in all, while in the expectoration from cases of ordinary bronchitis the search for it has always been in vain. They have gone further, and endeavoured to ascertain what prognostic indications can be deduced from the presence, abundance, and character of the organisms. They believe that the number and degree of development of these are of considerable prognostic value, and that the prognosis is bad whenever the bacilli are numerous and well developed. In the most acute cases the organisms were exceedingly abundant. The more rapid the process of lung destruction the larger is their number, and it is greatest towards the end of the disease. The distinctive and developmental character of the organisms presents considerable variation in different cases. Sometimes they were small and presented no trace of spores, and in this case they were always few in number, and the disease was either arrested or making very slow progress. In the rapid cases, with fever, night sweats, &c., the organisms were

not only numerous, but large, well developed, and spore-bearing. In post-mortem examinations, a marked difference was found between the number of bacilli in the walls of the cavities and in their contents. They were scanty in the former when they were most abundant in the latter. Hence it is assumed that the sputum is a more suitable field for the development of the organisms than the living pulmonary tissue. The difference can scarcely be explained by the presence of oxygen in the contents of the cavities, since the bacilli were found in great numbers in the pus within a knee-joint, the seat of tubercular inflammation, perfectly protected from the presence of air.

Professor D'ESPINE, of Geneva, has carried out a similar investigation (*Revue Médicale de la Suisse Romande*, Dec. 1882), but can only partially confirm the conclusions of the German pathologists. According to him, KOCH'S discovery is of the greatest diagnostic value, but as an element in prognosis the bacillus is almost worthless. He has found the organism in the expectoration of twenty cases which were regarded on other grounds as tubercular; and they were absent in five cases which were diagnosed as bronchitis with emphysema; although in several of these there was a chronic induration on the apex of the lung, with dilatation of the bronchi. One of these patients, it is incidentally noted, had been for a year in a bed adjacent to that occupied by a tubercular patient, and certainly ought to have presented the bacilli if these come accidentally from the atmosphere. Of the twenty positive cases, in seven the organisms were present in large quantity; but in five of these there was no fever, and the disease had a very chronic course; one of them, indeed, was in a condition of arrest and in good health; the two others had hectic fever and extensive cavities. Five or six were suffering from laryngeal ulceration, and it is possible that from these ulcers most of the bacilli came. In thirteen cases the bacilli were scanty, and in some were arranged in groups. In some instances only two or three were found, after a series of preparations had been examined. One of these cases presented high pyrexia, and another with an enormous cavity died a few days afterwards. Hence the Professor concludes that the assertions of BALMER and FRAENTZEL relative to the prognostic value of the number of bacilli in the sputum are erroneous. The same conclusion is reached by D'ESPINE regarding the significance of the degree of development of the bacilli. In some cases very distinct segmentation was seen—sometimes five or six cells in juxtaposition. Sometimes there were small round shining points, which may have been spores. He thinks, however, that it is better to speak of unicellular bacilli and multicellular bacilli in process of segmentation. These two forms were met with indifferently in chronic cases which caused no anxiety, and also in cases which were very near their termination. Hence he believes that it is an illusion to regard the developmental character of the bacilli as affording any prognostic indications. In a case of acute miliary tuberculosis the scanty expectoration showed no evidence of bacilli, and hence in this variety, in which diagnostic help is so much needed, it seems unlikely to come from this source. In conclusion, D'ESPINE insists on the necessity of numerous and repeated examinations on different days, before the absence of the bacilli is regarded as certain.

THE *Scotsman* devotes a leader to the subject of the proposals of the Royal Commission on the Medical Acts, and allowing for the Scottish university standpoint, from which the writer evidently views the subject of medical reform, the article is not altogether unworthy of our contemporary. The great defect of the Medical Council is admitted: its want of authority to enforce upon the various licensing bodies such changes as are deemed advisable to bring their examinations and curricula up to the more modern standard set by some of their number, and in accord with the greatly increased facilities offered to students. Moreover, the principle of the direct representation of the profession is supported, as we should expect in such columns. Our contemporary admits the difficulty of judging the merits of the diplomas and degrees granted by nineteen different corporations. The writer adds, however, that, provided the nineteen licensing bodies grant their diplomas only to men of well-tested merits, they might be increased without disadvantage to the public to ninety-nine. One answer to this is, that this is just the very thing which it is said they do not do. Another answer is, that it is very difficult to supervise the doings of nineteen bodies, and proportionally more so to supervise "ninety-and-nine." Our contemporary rejoices over the fact that none of the bodies came so unscathed out of the fire as the Scottish universities; and argues that to subject their students, after passing the "far higher examinations" of the university, to a lower examination prior to legal recognition, and also to make them pay a considerable fee for it, would be found an intolerable nuisance. We have a strong conviction that if our contemporary were to devote a little more time to this subject, both it and its readers would see that it would be no hardship, but a very great advantage to the Scottish graduates to submit to a final clinical examination before the public central State-appointed medical authority. On its own showing, the examination would give the candidate no trouble, for he would pass it easily, having prepared for or passed one of a higher standard. The fee proposed to be charged is not considerable—it is one of five guineas; and these terms have been offered as a "concession" by the representatives of the Scottish universities. The writer of the leading article in question is too reasonable to deny that even the Scottish universities, in the vital matter of competence in medicine, ought to submit to tests imposed in the interest of the State; and he is too well informed not to know that men of authority do disparage all the existing examinations of the Scottish universities, and will be still more apt to do so if the universities are tempted, as they might easily be, to compete with the new licensing boards, by keeping their examinations just above the level of the minimum standard. It is certain that many Scotch graduates are dissatisfied with the representatives of Scotch universities for not accepting any reasonable scheme for stopping the mouths of such disparagers. The graduates of Scotch universities are not going to be subjected to any tests which the English and the Irish universities are not to be subject to, and the fact that the Scotch universities educate a much greater number of graduates than the other universities is an additional reason why they should be willing to submit to tests which have been cheerfully submitted to by other universities. There have been times when Scotch

graduation implied little honour. It is the interest of Scotch graduates to prevent the recurrence of such times, and we trust to the public spirit of our contemporary to view in this light the recommendations of the Royal Commissioners in regard to university graduates.

Annotations.

"Ne quid nimis."

CONVOCATION OF THE UNIVERSITY OF LONDON.

AT the meeting of Convocation next Tuesday the only business relating to the medical faculty is a resolution standing in the names of Drs. Meek and Horrocks, expressive of the desirability to introduce into the examination for the M.B. degree a clinical examination in diseases of the eye and ear, to be conducted in each case by special examiners. The suggestion seems to be a good one and should be practicable, the only argument that is at all likely to be raised against it being the question whether these special subjects should have preference over others—e.g., mental diseases. We are glad to see that the movers of the resolution limit the examination to clinical work, for, properly conducted, a clinical examination is a better test than a written paper. At the same time fears may be expressed that the severity of the examination will be needlessly increased thereby. Before Convocation adopts the suggestion, however, it will be acting wisely to refer it to its Annual Committee, which might occupy itself with advantage in a thorough inquiry into the whole medical curriculum of the University, particularly with regard to the system of partial examinations which has been so widely, and to our thinking so lamentably, extended in the medical degrees. The other business in the agenda of the meeting includes a request to the Senate to admit graduates in music to Convocation to be moved by Mr. Christie; a resolution urging the Senate to further the object of a resolution of Convocation passed last May with reference to Gresham College, moved by Mr. McDowall; and a notice by Mr. Spratley for the appointment of a special committee of Convocation to draw up a scheme for local examinations.

MR. GLADSTONE'S HEALTH.

THE health of Mr. Gladstone is a matter of more than national importance. It is the more to be regretted that he occasionally exposes it to unnecessary risks, as in felling trees in winter days, and in undertaking political and other work which might well be left to others. Such indiscretions are the more unreasonable in view of the prodigious labour thrown on Mr. Gladstone since his accession to office, extending down to Christmas. It should be remembered that fatigue is the starting point of chill-taking, and that this, in its turn, is followed by slight febrile disturbances, loss of sleep, and a weariness that sometimes amounts to pain. The nature of Mr. Gladstone's present indisposition is clear enough; and although it would be wrong to exaggerate its importance, it would be more so to ignore the lesson taught by it. Mr. Gladstone has been suffering from the lassitude that follows a cold, from sleeplessness, and other indications of slight nervous exhaustion. The sleeplessness is the more noticeable as, contrary to what one might expect, Mr. Gladstone is a good sleeper. There is every reason to believe that with the rest so properly imposed by Dr. Andrew Clark this characteristic will return, and the lassitude disappear. The public will owe a deep debt of gratitude to Dr. Clark if he will use his authority somewhat despotically. Mr. Gladstone is not to be restrained easily. He has been known before now to go to the House of Commons after the initiatory rigor of a pneumonia, and with a pyrexial temperature to leave his bed for a Cabinet meeting. These are excesses to be pardoned in a man moved by great forces, within and without; but they call for the exercise of medical authority, and this, to Mr. Gladstone's credit, he has bowed to before with great national advantage, and will do so again.

NOTIFICATION OF INFECTIOUS DISEASES IN NORWICH.

AMONG the strongest arguments in favour of the compulsory notification of infectious diseases are the facts that in towns where it already exists all medical officers speak most favourably of its operation, and few objections are made by the local practitioners. The medical officer of health for Norwich in his last annual report speaks strongly of the satisfactory and useful operation of the local Act under which notification is made in Norwich, which he declares to be "well worth what it costs." The report before us states that the medical officer received during 1881 403 notices, against 858 in the preceding year, but it may be noted that measured by the number of fatal cases of the diseases liable to notification, in each year, the cases notified in 1881 showed a higher proportion than in 1880. This seems to suggest an increasing loyalty to the enactment, and probably a more general conviction of its utility, combined with a decrease of the vague fears which always precede its adoption. The medical officer is especially grateful for its utility in certain sporadic cases of small-pox, enabling him to secure either removal to hospital or careful isolation at home. Eight cases of small-pox were reported in Norwich during last year, but no outbreak took place, and not one proved fatal. It is noteworthy, however, that the accommodation for infectious diseases in Norwich is markedly insufficient, which must seriously militate against the possibility of turning to full account the advantage of notification. It appears that only 5 of 340 cases of scarlet fever reported during the year were treated in hospital, and but 3 of the eight cases of small-pox. We doubt much whether in crowded cities the notification of infectious diseases can fulfil the reasonable expectation of its advocates unless it exist in combination with a larger proportion of hospital accommodation than is provided in Norwich. Notification is of little real use without ample hospital accommodation, and hospital accommodation cannot be turned to full account without notification. Much may reasonably be expected of the two in combination.

WILD ANIMALS IN INDIA.

IN our last number we called attention to the mortality in India from snake-bites. From an account given by Sir J. Fayrer it appears that the mortality due to wild animals, though much less than that ascribed to snakes, is considerable, and forms a very important item in the mortality returns of that country. The total number of human beings killed in India by wild animals in 1881 was 2757, a number showing a slight decrease compared with 1880, in which year 2840 persons lost their lives from this cause. The rewards paid to slayers of these dangerous animals amounted in 1881 to 91,850 rupees and the number of animals killed was 15,279. In 1881 the greatest number of deaths—viz., 1367, occurred in Bengal; in 1880, too, this province headed the list with 1295 deaths. The wolf and the tiger appear to be the principal offenders. Licences under the Arms Act seem to have been freely granted to persons who require arms for protecting themselves, their cattle, or their crops from the ravages of wild animals. The value of the rewards

paid varies in the different provinces: thus, tigers range from 5 to 20 rupees in Burmah to 50 to 500 rupees in Madras; wolves from 1 to 20 rupees in Oudh and Bengal respectively. Bears vary from 1½ to 12 rupees, and a fortunate conqueror of a lion is recorded to have been paid 25 rupees. No rewards are officially proclaimed for elephants, buffaloes, or bisons, but in the case of notorious rogue elephants rewards have been specially offered. In 1881 41,640 head of cattle were killed, a loss which cannot have had a favourable effect on the prosperity of a country never, at least in late years, famous for wealth. A suggestion has been made that an organised establishment be formed for the slaughter of these pests, a duty which is now left to the will and caprice of individuals. This suggestion seems one calculated, if properly carried out, to make an impression on a death-rate which, so long as it continues in its present condition, must be referred to a defect in our administration.

THE PATHOLOGY OF GLANDERS.

THE presence of minute organisms in cases of glanders was first pointed out by MM. Christat and Kiener in 1868, and their observations have been recently corroborated by MM. Bouchard, Capitan, and Charrin, who have found the organisms not only in the parts exposed to the air, such as the nasal ulcerations and pulmonary abscesses, but also in parts which are not so exposed, such as the spleen, liver, and lymphatic glands. Their constant presence and uniform characters afford ground for regarding them as the pathogenic element in the production of the disease. This can, however, only be proved by demonstrating that the organisms, when cultivated outside the animal body, are capable of giving rise to the malady. The experimenters have succeeded in cultivating the organisms obtained from the human subject, from the horse, and the guinea-pig, in neutralised solutions of extract of meat, kept at a temperature of 37° C. They have even obtained, by successive cultures, the seventh generation of organisms, but only in those liquids which were kept from the influence of the air. Preliminary experiments proved that in the first and second cultures the morbid power of the organism is fully preserved. The malady thus caused in guinea-pigs is absolutely identical with that which is produced in the same animal by direct inoculation from a glandered horse, so far as the anatomical appearances are concerned, and the results obtained were uniform in no less than sixty-one animals experimented on. Only such results of the inoculation of the cultivated organisms can be regarded as affording proof that these constitute the actual cause of the disease, and this proof, now afforded as regards glanders, has hitherto been furnished in the case of only one other of the diseases which affect man—anthrax.

UNHEALTHY DWELLINGS IN ROME.

No one who reads Dr. E. Sernicoli's contribution to the current number of a medical journal published at Rome will be surprised at the prevalence of zymotic disease in the Eternal City. Referring to the number of underground dwellings in the new as well as in the ancient quarters of the city, he says that many of them, bordering upon close courtyards, to which the rays of the sun never reach, are inhabited by the *cicoriari*, or costermongers, who keep in their lodgings the vegetables and fruits which they hawk about for sale. There are sometimes as many as ten, fifteen, and even twenty persons living in two rooms, each of which is not ten feet square. Dr. Sernicoli visited one room forty feet long by fourteen feet wide and ten feet high, which was inhabited by twenty persons. In many cases these people do not all belong to the same family, the consequence of which is great immorality, resulting in disease of the most loathsome kind. In the month of February last the local board of health evicted three hundred persons from their dwellings, and the agents of the board noticed in the course of their visits that in the Via Mesalana fifty mud-huts, ten feet wide by eight feet high, had been put together, and that four or five persons were living in all of these, without distinction of age or sex. Dr. Sernicoli's conclusion is that Rome has an insufficiency of dwellings for the poor, and he recommends that the Government should try the experiment which has been found to answer so well at Mulhausen in Alsace, where the working classes have been provided with wholesome residences at a very moderate cost. In the meanwhile, English visitors to Rome will do well to avoid buying vegetables from the hawkers who live in the dwellings referred to by Dr. Sernicoli.

ISOLATION AT SWANSEA.

SWANSEA is one of the sanitary districts which has provided itself with a hospital for infectious diseases. According to the official report on the use and influence of such hospitals it is structurally by no means of an attractive character, and it might hence have been anticipated that every effort would have been made by the Corporation to counteract any deterring effect resulting from this cause, by affording every reasonable facility for isolation, and by giving those submitting to removal from their homes such suitable attendance and comforts as were possible. But, judging from the last annual report issued by Mr. Ebenezer Davies, their medical officer of health, the sanitary authority would appear to have done nearly all they could to make their hospital, which should be one of their principal means of defence against the spread of infection, practically useless. In the first place they seem entirely to have forgotten that the hospital is provided at the public cost and for the public protection, and that the removal of patients to it is primarily for the benefit of the community. Thus, according to Mr. Davies, patients "are supposed to pay for their nursing and subsistence, and moreover, to provide their own medical attendant." But the population of Swansea consists to a large extent of the artisan class, who have homes over their heads and club doctors to attend them when ill. Their homes, it is true, are such that infection necessarily spreads from them, and the club doctors cannot, as such, undertake to follow their patients, a distance of some miles, to a hospital. The result is that, quite apart from the fear of having to pay for the maintenance and nursing of their sick in hospital, they naturally elect to keep their infectious relatives and friends at home, regardless of whether the disease should spread to the general community or not. If further experience were required to show the want of foresight which authorities exhibit in thus depriving themselves and the public, for whose health they are responsible, of the value of an isolation hospital, it is afforded us from Swansea. In the year reported on we learn that scarlet fever was "diffused very generally over the whole district," causing 88 deaths, a mortality which probably represents at least some 900 or 1000 cases. Of this number two solitary cases were admitted to hospital, and removal, even in these cases, was apparently effected because they were paupers for whom the guardians could doubtless be required to pay. We would strongly counsel the Swansea sanitary authority, and any other authorities following a similar course, to make themselves acquainted with the conditions which experience has shown to secure either efficiency or failure in the matter of the isolation of infectious diseases. And we would specially point out that this question of compelling the comparatively poor and the wage-earning classes to make a payment to a public body when they consent to subject themselves or their relatives to isolation in a rate-supported institution and for the benefit of their fellow townspeople, is one of the utmost importance in this connexion. When these classes have sickness at home

they are generally less able to make such payment than at any other time. The Royal Commission on Fever Hospitals fully recognised this difficulty, and whilst suggesting that such persons as require privacy or special comforts should be made to pay, yet as regards the expense of isolating others they recently reported as follows: "It is a question, except in the case of separate wards, whether it should be ultimately recoverable even from those who are able to pay for it."

THE PARIS HOSPITALS.

THE Paris Municipal Council has voted a sum of £120,000, two-thirds of which are to be laid out in improving the present hospitals, and the other third in building new ones. This vote was arrived at after a long debate, the statement made by M. Charles Quentin, the director of Public Relief, carrying great weight with many members. M. Quentin said that the number of beds in the existing hospitals falls so far short of what is required that the central committee were continually having to refuse applications for admission, and that upon the other hand many of the beds are occupied by patients with chronic and incurable complaints, to the exclusion of others who are suffering from acute affections which require immediate treatment. The consequence is that they have, if admitted at all, to be placed upon stretchers, and that the wards become so crowded as to multiply tenfold the danger of infection. In order to ascertain whether the deficiency of beds was greater in the hospitals than in the almshouses (*hospices*), M. Quentin has had a return prepared, and it appears that there are in the ordinary hospitals 5616 beds—occupied by 2579 patients suffering from acute complaints, and by 2270 patients whose affections are chronic—and 5769 infirm persons. It would appear, therefore, that what is most required is an establishment partially hospital and partially almshouse, the applications for admission into an almshouse increasing every year. There were only 1820 in 1872, but they exceeded 3100 for the first eleven months of this year, and the committee have at the present time upwards of 1000 applications for admission from aged persons who are in urgent need of relief. These applications they are unable to grant for want of space, the only alternative to absolute refusal being to give them temporary shelter in the vagrant depôts at St. Denis and one or two other places near Paris. This, as M. Quentin observed, was a state of things by no means creditable to a city like Paris, and his proposal to build a new almshouse with accommodation for 2200 inmates is doubly acceptable, for upon the one hand it will benefit the aged poor, and upon the other make room in the regular hospitals for cases which require immediate treatment. M. Quentin also suggests that the Municipality should build a hospital for incurable children, as there is not any establishment in which they can be received, and he urges upon them the necessity of erecting a small-pox hospital outside the city, for at present the patients suffering from this malady are sent from hospital to hospital, much to their own detriment and to the great danger of the public health.

QUARANTINE.

THE Egyptian Board of Health will, we trust, soon convince the most ardent supporters of their quarantine system both of its absurdity and of the extortion with which it is associated. Thus the steamships *Bengal*, *Shelley*, and *Red Sea*, all from Bombay, and carrying both pilgrims and a general cargo, were recently detained at Camaran and Jeddah for periods varying from twenty-four hours to five days, and this although there was no sign of infectious disease on board. The examination of the passengers and the disinfection of the cargo and vessels being completed, the sum charged amounted to about £100 a piece. The process of disinfection consists in burning a little sulphur, mixed with incense, in the hold of the vessel, and it doubtless has much the same effect as the equally absurd practice which is at times carried out in England, when an inspector of nuisances sprinkles a little red powder about yards and the neighbourhood of gulley-holes because, in some house near by, there is a case of infectious disease. The effect we refer to is to give to the ignorant a false sense of security; in other words, it is simply mischievous.

MENTAL CHARACTERISTICS OF MR. GLADSTONE AND LORD BEACONSFIELD.

ALL who have watched the brilliant career of Mr. Gladstone, particularly during the last twenty years, must be conscious of the fact that even his excellent "constitution"—if we may be permitted to use that banned but expressive term—has been often severely tried by the vigour of his brain and nerve power. To the physiologist, who recognises the inter-relation of those parts of the being which some try to separate, and speak of apart, as "mind" and "body," the study of such lives as those of Mr. Gladstone and the late Lord Beaconsfield comparatively with the ideal standard of perfect humanity, is intensely interesting. Lord Beaconsfield had a vigorous but not a thoroughly cultured brain. The development of his cerebral and nervous organism was not, so to say, general, and equal throughout. He had excellent parts and extraordinary intellectual fervour, with a strong will and an immense power of self-restraint; but it is no disparagement of the noble lord's physico-mental organism to chronicle the physiological fact that his brain lacked, and not unfrequently gave unmistakable evidence of lacking, that high coherent development which is only to be obtained by early and persistent mental discipline and culture. He was rather brilliant than grand, as studied from a psychological standpoint, and it was a physiological consequence of his brain-type that his policy was one rather of finesse and dazzling energy than of persistent growth of purpose. Mr. Gladstone, on the other hand, is possessed of a brain which has been physiologically developed by training and exercise commenced in youth and continued far into adult life with an intense struggle for self-improvement by intellectual discipline and industry, and his mind and nerve power are supported by a very considerable amount of sensory and muscular strength and energy. The perils of his life have ever been those of "overwork" in its truest sense. Brain function has frequently outstripped bodily strength; and if his constitution—we again dare to use this word for want of a better—had been a little less strong, if the recuperative power of the organism as a whole had been only a little less considerable, the right hon. gentleman must on several occasions have broken down. The so-called "irritability" of temperament which Mr. Gladstone has, in some of his most trying sessions, been observed to evince, has been the outcome of an over-active rather than a weak nervous system. If it were possible, the right hon. gentleman would even now exhaust his reserve of nerve force by the energy of his great intellect at an age when other men of his calibre have shown symptoms of waning energy.

THE HOUNSLOW INQUEST.

THIS inquiry, the public interest in which appears to undergo no diminution, was continued on Wednesday, and the evidence of Mr. Garrett, the assistant of Dr. Whitmarsh, and of Mr. Barber, solicitor, was received. These witnesses were cross-examined at considerable length by Mr. Lewis, and much irrelevant matter was entered upon. Scarcely any additional facts were, however, brought out, and the inquest was again adjourned till Tuesday next.

"DEATHS AFTER ABDOMINAL OPERATIONS FROM HEART-CLOT."

A CORRESPONDENCE on the above subject has appeared recently in our columns, the main object of which appears to be to show the place occupied by the "carbolic spray" in operations involving the opening of the peritoneal cavity. Mr. Knowsley Thornton believes that "pure Listerism" gives the patient the best chance, and tends to prevent the formation of heart-clot, which he attributes to septicæmia; and in support of his opinion he quotes the results obtained by three surgeons in 935 cases of abdominal surgery. He finds the mortality in his own practice 1-10th per cent. less than the mortality in Dr. Keith's practice. Dr. Keith has operated in 381 cases, with 10·76 per cent. mortality; Mr. Thornton in 328 cases, with 10·67 per cent. of deaths. Dr. Keith, with justice, replies that his list contains cases done twenty years ago, when the difficulties of abdominal surgery had not been overcome, and then gives his results during three periods—before he adopted Listerism, while he used Listerism, and after he discarded Listerism. Dr. Keith manipulates his cases in a way which has a tendency to give rise to misapprehension. He states: "Of 121 abdominal operations done with strict Listerism, and with the utmost care, there were eight deaths (16·6 per cent.). There was surely nothing gained by this; no improvement of position here. ..... I then went back to the old way, and did 45 cases without any spray and without any death. If to these we add 26 cases, with 1 death, done before beginning the spray at all, we have 71 operations without the spray, and with only 1 death, and the tumour removed was a malignant one." Then follow the statistics of the cases, 64 in all, done in the Royal Infirmary: 24 of these were done with carbolic spray, with a mortality of 16·6; 2 with boro-glyceride spray, with 1 death; and 38 with no spray, with 2·56 per cent. of deaths. The fallacy of the inference which naturally follows from the above data is at once made manifest when we state that Dr. Keith operated upon 80 cases in succession under the carbolic spray, without a death. At the Congress Dr. Keith said, "Though I had at one time a series of 80 recoveries under the spray, I have reluctantly given it up, believing that on the whole it did more harm than good." Dr. Keith, has, in fact, had an apparent greater success with the spray than without it (80 cases without a death with the spray, and 71 with 1 death without it), and yet he may be right in his conclusions as to the injuriousness of the spray. This clearly shows that the cases given by Mr. Thornton, and part of which are given in another form by Dr. Keith, are insufficient to settle the point at issue. The sources of error are too numerous for accurate conclusions to be obtained except from very large numbers.

THE INCREASING DRUNKENNESS OF SWITZERLAND.

IT would be interesting to know whether the perusal of the remarkable letter of *The Times'* correspondent on the drunkenness of Switzerland, since the trade in alcohol was thrown open, has produced any effect on that eminent English prelate who distinguished himself still more by saying epigrammatically that he preferred freedom to sobriety. However this may be, the picture, or rather the facts, are simply appalling. The increased amount of alcohol consumed, the increased crime traced directly to taverns and those who use them, and the particular illustrations given of the amount spent on drink by workmen, are, beyond all dispute, shocking. What is equally clear, too, is that this state of things dates from an alteration in the Constitution in 1874, which, according to the *Federal Tribune*, gives each citizen without restriction the right to trade in alcohol in any part of the Confederation. Under this grand reign of freedom Geneva is now about the most drunken city in Europe. The selfishness of this vice comes out in some of the statistics given of the proportion of the wages of workmen spent before they are earned in drink. These have been gathered by Herr Siegfried, who had access to the books of a contractor who also kept a public-house. One man, whom he calls A., in the week ending January 7th, 1881, earned 23 fr. 60 c., and spent 20 fr. 5 c. He thus took home with him as the fruits of his labour 3 fr. 55 c.—not quite 3*s.* B. earned 29 fr., and spent 22 fr.; C. 28 fr., and spent 18 fr.; D. 23 fr., and spent 10 fr.; E. 20 fr., and spent 16 fr.; F. 21 fr., and spent 20 fr.; and a mason's labourer, besides spending the whole of his week's wages, left a balance of 4 fr. to the bad. One week, when the men worked less or drank more than usual—perhaps both—the innkeeper-contractor had no money at all to pay, and every one of them began the following week with a balance against him. The public houses in Switzerland have increased from 17,807 in 1870 to 21,738 in 1880. There is a public house to every 130 inhabitants; or, deducting women, children, and the sick, there is one tavern to every thirty persons! In all quarters the greatest alarm is properly produced by these facts, and by the public discredit which is rapidly accruing from them.

THE BRADFORD CATASTROPHE.

THE terrible calamity which happened in Bradford on the 28th ult. has at present resulted in the death of fifty-four persons, a much larger number than was at first anticipated. The task of extricating the bodies from the ruins was carried on continuously (during the night by the aid of the electric light) until half-past eight on the Monday evening after the accident, when the violence of the wind rendered it too dangerous to proceed with the work. It has been a tedious, difficult, and very dangerous process, but fortunately accomplished without serious injury to anyone. In many instances the bodies were so terribly smashed and mutilated that identification was impossible except by means of articles of clothing. For the following particulars we are indebted to the courtesy of Mr. Geo. Mickle, who was acting as house-surgeon at the time of the accident, and subsequently to Mr. W. J. Spence, the house-surgeon:—

On the 28th ult. twenty-four individuals were removed to the infirmary, one of whom was dead on arrival, and two others died shortly afterwards. Another was admitted in a very precarious state on the following day, and died on the 6th inst. Of the twenty-one remaining, thirteen are females and eight males. Six of them are suffering from fracture of the skull, and the others from fractures of the long bones, scalp wounds, and various contusions. All are doing well, and likely to recover. The poor girl who died on the 6th had compound fracture of the skull a little in front of the left parietal eminence, and fracture of the right radius. There was also protrusion of brain-substance. About forty-eight hours after the accident she was comparatively sensible, but irritable and obstinate. There was neither motor nor sensory paralysis, nor were there any involuntary evacuations. She died on the eleventh day after the injury, becoming unconscious only a few hours before death. There is another girl, aged thirteen, who has compound fracture of skull, also compound fracture of both bones of right leg. The injury to the head is about the middle of the frontal bone, just above the frontal sinuses. On admission, when asked her name, she replied, "Five minutes past eight" (just about the time the accident took place). Two hours later she replied to the same question, "Twopence three farthings," and again in another hour, "Forty-five." A quarter of an hour later she told Mr. Spence her proper name. Since that time she has

been perfectly rational and steadily improving in all other respects. A boy, aged twelve, who had concussion of brain and laceration of right leg, remained almost motionless in a curled-up position for thirty-six hours. Twelve hours later he was conscious, but had no recollection of the accident or anything which took place that morning previously. He knows where he lives and where he was working, and in other particulars is perfectly sensible, but he does not remember going to work. Of the fifty-four persons killed by this lamentable accident, twenty-six had their skulls fractured, besides other injuries. Many of the others found dead appear to have been suffocated.

SUFFOCATION IN CHURCH.

THE advent of the cold weather reopens the question of warming and ventilating places where large numbers of persons congregate. Some attention has been devoted to the ventilation of theatres and similar institutions, though we are still far removed from any satisfactory solution of the difficulty. But in churches, especially in rural churches, the matter has been too often left to the providence of accident rather than the certainty of science. Where is the vicar who is in the habit of calculating the cubic contents of his church in comparison with the number of his congregation and the oxygen-consuming powers of the gas or candles he employs to light the edifice? We have seen statistics of the volume of air that can, in a given time, be warmed and moistened, and delivered pure to an audience sitting in a model theatre, such as, for instance, the grand theatre at Geneva; but the measuring of the supply of pure air given to a church is an experiment so rare that we do not remember when or where it was attempted. Yet this matter should not be neglected if only from the mere fact that whereas most persons go to theatres when they are in good health, a considerable number of invalids frequent churches. The ventilation of churches is, however, often so bad that it affects the strong as well as the weak. It was only the other day that we heard of a serious accident during divine service at Auchnaeley church. The stoves, it appears, were rather old, and the gases produced by the combustion of coke escaped into the church, causing several of the congregation to faint. The officiating clergymen, the Rev. T. G. Stokes and the Rev. W. Earl, were so seriously affected that, though they struggled through the service, the latter gentleman swooned and became unconscious almost immediately after the benediction. We need scarcely point out that where coke stoves are employed thorough ventilation should be ensured; for coke not only gives out a large volume of carbonic acid gas, but also contains more sulphurous acid than most other fuels. It is therefore doubly dangerous, and a little mismanagement is quite sufficient to place a whole congregation in jeopardy. Perhaps the mishap at Auchnaeley will be useful in calling attention to the question of church ventilation.

THE BACILLUS ANTHRACIS.

OUR New York correspondent writes:—"Professor Leidy gives the following account of the discovery of Bacillus anthracis in the blood of a cow under the following circumstances: On the 10th of May last the cow was apparently well, was milked the same evening, but died the next morning. A number of cows of the same herd had died previously under similar circumstances. The abdominal viscera were found to be much congested, and the spleen gorged with blood, which teemed with bacteria of the form known as Bacillus anthracis. The bacilli were more numerous than the blood-corpuscles, which appeared unchanged. They were motionless, and measured from 0·006 to 0·042 mm. in length. Kept for some days in the blood the filaments underwent division into little chains of two, three, or more dumb-bells, while others merely grew in length and divided into segments. I mention this circumstance because as the Bacillus anthracis is now regarded by many competent authorities as the cause of anthrax or splenic fever, the facts I have mentioned may be of value in tracing contagion. Here were cows in apparent health delivering their milk, which was used as food, within a few hours of their death. Oleomargarine is manufactured at a temperature under 120° F.; in other words it is raw fat. Should this recognised article of diet be unfortunately made from parts of such animals, and the probability is great, the risk of contagion in such a case must be admitted."

THE LATE DR. J. F. MEIGS.

PHILADELPHIA has recently lost one of her most respected and useful citizens in the person of Dr. John Forsyth Meigs, whose professional repute has for years been high in this as well as his own country, through the esteem in which his work on Diseases of Children is held. He was the son of Dr. Charles D. Meigs, who was a distinguished obstetrician in Philadelphia, and lectured on this subject at the University of Pennsylvania. Very early in life, 1834, he entered the University as a student of medicine, and in 1838, when only twenty years of age, he graduated Doctor of Medicine. He was for a year Resident Physician at the Pennsylvania Hospital, and at the end of this period he took a long tour in Europe before settling in practice with his father. At first Dr. C. D. Meigs entrusted to his son's care the health of the younger members of the families under his own care, and it was in this way that he was led to devote himself specially to the diseases of children. He was a painstaking and careful observer, and took accurate notes of every one of his cases. On these notes he founded his lectures, and subsequently his well-known work on Diseases of Children which has run through no less than seven editions. For five and twenty years he was attending physician to the Pennsylvania Hospital, and devoted himself to his public duties with great energy. For many years he had a very extensive and laborious practice, and up to the last it was found impossible to induce him to relax his efforts, or to lessen those labours which were sufficient to tax the strength of the strongest. And thus at length he fell a victim to his ardour for work. He caught cold while out driving in an open carriage on December 10th, a very cold day, left pleuro-pneumonia developed which subsequently spread to the right side, and on December 16th proved fatal. Dr. Meigs was universally respected, alike for his skill as a physician, his kindness as a friend, and his blamelessness of character.

KILMARNOCK INFIRMARY.

THE fourteenth annual report of the Kilmarnock Infirmary has just been published. Along with the list of subscriptions and balance-sheet it contains a brief medical report. As the Kilmarnock statistics have been already more than once made use of in discussions on the treatment of wounds, it is desirable that they should be duly noted and recorded year by year. During the year 201 surgical cases passed through the wards; of these 168 were cured, 44 relieved, and 7 died. Among the deaths four were cases of severe general injuries from railway accidents, two of whom were moribund on admission, and died in two and thirty hours respectively, the third had the arm amputated at the shoulder-joint, and succumbed to severe internal injuries in twenty-eight hours; and the fourth case died from the same cause after six days. The other three deaths were: one from general struma, one from tetanus after ligature of the plantar artery for wound in the foot, and one from

gangrene of the scrotum. There were thirty-five operations during the year, with two deaths; among them nine major amputations, with one death, which occurred in twenty-eight hours from internal injuries; among the recoveries was a case of double amputation of the arm and leg, and an amputation of the thigh in a woman aged seventy-four. The only other cases of any gravity were: one of compound depressed fracture of the skull, in which no operation is recorded, one compound comminuted fracture of the leg, one excision of the breast, and one excision of the elbow-joint. Dr. Borland states that no case of pyæmia, septicæmia, erysipelas, or hospital gangrene arose during the year, and from this draws a conclusion in favour of wound-treatment consisting of "rigid cleanliness and simplicity of wound dressings, and, as to the hospital in general, of the same cleanliness, combined with attention to hygiene." It appears to us, however, that in this instance the conclusion is considerably larger than is warranted by the premisses.

ANTHRAX.

IT has been usually held that the bacteria of anthrax do not pass from the blood of a pregnant animal to that of the fœtus, but some experiments of Straus and Chamberland seem to show that this is an error, and that the placenta does not always constitute an impassable barrier. It is probable that this affords an explanation of some cases in which pregnant ewes were inoculated and their lambs were found to have acquired immunity. The fact that such passage to the fœtus is not invariable, which these experimenters have also ascertained, explains why, in some similar cases, the offspring of the ewes are not protected. Moreover, abortion has sometimes followed the inoculation of pregnant animals, both ewes and cows, and this is possibly the result of the infection and death of the fœtus, when the mother, by greater strength, was able to resist the influence of the disease. A report on the prophylactic inoculation in the department of Eure-et-Loire has been presented to the Veterinary Society of Chartres by M. Boutet, which gives some interesting evidence of the extent to which the system is now being employed. The number of sheep which have been vaccinated more than a year is now 79,392. For the last ten years the average annual loss in these flocks was 7237, or 9·01 per cent. During the last year only 518 have died, that is ·65 per cent. But, on account probably of the wet season, the mortality among unprotected animals in this department was only 3 per cent. Hence the 518 deaths must be compared not with the average loss, but with that in other flocks, which would correspond to 2382. It then appears that the inoculations have reduced the mortality to less than one-quarter of what it would otherwise have been. In the flocks which had been only partially inoculated the number of vaccinated animals was 2308, and of non-vaccinated 1659. Of the former eight died, or ·4 per cent.; of the latter sixty died, or 3·9 per cent. The flocks were distributed in various regions of the department, and lived under the same conditions as regards food, temperature, and local influences. Of cows and oxen, 4562 have been inoculated. Of this number the annual loss had been 3·2; since the vaccination only eleven cows have died. The annual mortality has thus been reduced from 7·03 to ·24 per cent. Local symptoms are produced in the horse by the inoculation, and although these are not usually grave, the low mortality from anthrax among these animals has deterred from any extensive vaccination of horses. Of the innocuity of the process of inoculation in other animals, a striking proof was mentioned by M. Pasteur, in communicating the above facts to the Académie des Sciences. During the preceding six weeks no less than 13,000 sheep, 3500 oxen, and 20 horses had been inoculated, and of the total of 16,520 animals not one had died.

PUBLIC RISKS OF HOSPITALS FOR INFECTIOUS DISEASES.

THE correspondence on this subject in *The Times* will do good. The authorities of fever and small-pox hospitals cannot too diligently consider how to reduce the risks to the public of such hospitals. Undoubtedly one of the ways in which disease may be propagated from these places is by visitors. Some amount of visiting is indispensable; but it should be reduced to a minimum, and it should be allowed only under such conditions as would at once be educational, and discouraging to all unnecessary and prolonged visits. It is scarcely intelligible that so much prejudice can have been created against such institutions without believing that there has been too much laxness in the use of precautions. No doubt such precautions will be troublesome in practice; but if the result be to curtail the spread of disease, and to help to reassure the public as to the possibility of having such hospitals without material danger, the precautions will be beneficial.

"THE FINANCES OF LONDON HOSPITALS."

OUR contemporary, the *Standard*, has most properly called attention to the impecuniosity of London hospitals, and the necessity they have been under of selling out their scanty reserve of stock to pay current and urgent expenses. It is not otherwise with dispensaries. "A Hospital Secretary," in a letter to our contemporary, attributes this impecuniosity to two causes chiefly, if not solely—first, the increased cost per head of patients of late years; and secondly, the increased number of patients. We fear we must add a third explanation of the fact. It has become fashionable to be critical in regard to hospitals, and to entertain excuses for not giving to them. This is a great mistake. They are splendid charities, and should be on every man's subscription-list who has a guinea to spare. Any occasional abuse of them is sure to be exposed, while the works of skill and charity which transpire within their walls are unpublished. We commend them most heartily to the public at this time.

SARCOMA OF THE PROSTATE.

A SPECIMEN of this rare affection was recently exhibited by Dr. E. W. Hughes at the Pathological Society of Philadelphia. It was obtained from a man aged thirty-five years, who had suffered from difficulty in micturition for a year; he had never passed blood. When in hospital it was found impossible to pass a catheter. The prostate was felt from the rectum to be enormously enlarged, smooth and rounded; and a smooth, rounded tumour was found above the pubes extending nearly up to the umbilicus. For the relief of retention this tumour was aspirated, and was found to be solid and to yield only a few drops of blood. The urethra was then opened in the perineum by Cock's operation, and a little urine drawn off. Dysentery set in, and the man died on the ninth day from peritonitis. At the autopsy, a tumour, which sprang from the prostate, was found; it weighed 5 lb. 2 oz. No trace of prostate or seminal vesicles could be found. The bladder contained a few ounces of urine, and was lying in front of the top of the growth nearly on a level with the umbilicus; the ureters were normal; the urethra was not involved in the tumour, along the anterior wall of which it ran. On section, the tumour was in places firm like scirrhus, in others softer and like encephaloid, and in other spots it had broken down into a thick puriform fluid. Microscopic examination showed the growth to be a typical, small round-celled sarcoma. Secondary growths were found in the omentum and the capsules of the liver and spleen. This disease is rare, and specimens that have been submitted to careful microscopical

examination are very few indeed. Sir H. Thompson states that there is no case of malignant disease of the prostate recorded between the ages of eight and forty-one; on this account, and from the non-implication of the ureters, urethra and mucous surface of the bladder, and the consequent healthy state of the kidneys, and the absence of hæmorrhage, this case is very valuable. The diagnosis was unattended with difficulty.

THE VACCINATION ACTS.

THE Leicester guardians have adopted a resolution which will go far to exclude that town from the operation of the Compulsory Vaccination Acts. Hitherto distress has been levied upon those neglecting to comply with the Acts, but in consequence of the disturbance attending these proceedings, the magistrates threw the onus of applying for distress upon the guardians. The latter have now instructed their officer in future not to apply for distress warrants for unpaid fines. It is not to be allowed that the law should be set aside in this indirect fashion; and one of the earliest, as it is also one of the greatest, questions which must engage the attention of the new President of the Local Government Board will be to secure that the Vaccination Acts shall be duly enforced by sanitary authorities.

NEPHRECTOMY.

WE learn from the *Philadelphia Medical News* that in one of the city hospitals of New York the operation of nephrectomy was performed, and after death, which took place in two days, it was found that the surgeon had removed the patient's *only* kidney. This was a difficulty clearly foreseen by Simon of Heidelberg. It is to be hoped that we shall have a full and authentic account of this case published, for it is of considerable interest and importance, and should on no account be withheld from publication.

PROFESSOR OWEN.

WE are happy to be assured that the rumours respecting the infirm state of health of Professor Owen are unfounded. The large circle of the professor's friends will share with us in the hope that his valuable life will be prolonged many years beyond the seventy-nine which it has already reached.

OPENING OF THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

THE Museum of the Royal College of Surgeons, having been closed for several months for cleaning and repairs, will be formally reopened this afternoon (Saturday). The President will hold a reception from 2 to 4 o'clock. Fellows and Members of the College are invited to attend.

A SPECIAL meeting of the subscribers to the Weston-super-Mare Hospital was held on the 29th ult. Captain Whitting presided, and the attendance was extremely limited. Two very important resolutions which are certain to affect the funds of the institution, though not, we hope, unfavourably, were adopted. The first resolution proposed to limit the out-patient notes to one for every guinea (instead of four notes as at present) collected at the churches and chapels. This was adopted by ten votes to two. The second, a proposal to expunge a section of the rule requiring weekly payments from domestic servants and wives and children of men earning twenty-five shillings a week, and requiring members of Friendly Societies to pay one-half of their sick pay to the hospital during their residence therein, was unanimously adopted.

ACCORDING to the *Publishers' Circular*, issued by Messrs. Sampson Low and Co., the number of new books relating to medicine, surgery, and the allied sciences, published last year was 119, and of new editions 58, against 108 and 56 respectively in 1881. Books, including new editions, relating to law, were 75 in number; poetry and the drama, 181; novels, tales, and other fiction, 420; theology, sermons, &c., 789; educational, &c., 525; and voyages, travels, and geographical research, 244. The most notable increase is that in the division of juvenile works and tales, which was represented last year by the number 987, as compared with 500 in 1881; whilst theology suffered a diminution in 1882 of 156 in comparison with the number of volumes and new editions issued in the previous year.

THE returns of the University of Edinburgh for the year 1882 show an increase over the previous year of 103 in the number of matriculated students, and include 1730 in the Faculty of Medicine, equal to a percentage of 51·8 of the whole number. Of these 692 were from Scotland, 611 from England, 41 from Ireland, 121 from India, 219 from the British colonies, and 46 from foreign countries. Of the graduates in Medicine, 33 took the M.D., and 188 the double degree of M.B. and C.M. The proportion of students proceeding to graduation was in the Faculty of Medicine 1 in 9, whilst in that of Arts (including Science) it was 1 in 11, in Divinity 1 in 6, in Law 1 in 97.

AT the usual monthly meeting of the East Barnet Valley Local Board, held on the 2nd inst., Dr. Sanders stated that in several houses where measles was prevalent, notices had been exhibited in the windows intimating that lodgings and apartments were to let, although at the time persons were lying ill with the disease in its most infectious stages. The Board decided to issue a notice to the effect that persons advertising their apartments during the course of any infectious disease within their houses would be prosecuted by the Board.

A NOVEL use of a functionary nowadays almost entirely neglected was made at Burslem, on the 30th ult., by a chemist of that town, who, it appears, had carelessly served a customer with poison in place of magnesia. The announcement of the bellman was a public confession of the mistake, and a caution to the purchaser not to use the deadly drug. The means taken to avert mischief seem to have been successful, for we hear of no death under such circumstances from that town.

THE arrests made in Philadelphia in connexion with the body-snatching to which we alluded in a recent number have excited great interest throughout America. Some of the authorities of the Jefferson Medical College are stated to be implicated, and Professor Forbes has been indicted on eight counts for complicity with the resurrectionists. Reports of grave-robberies have also reached us from Montreal, Greensboro', N.C., and Richmond, Va.

AT an adjourned meeting of the Local Board of Brynmawr, held on the 29th ult., it was decided, after hearing the opinion of Dr. Skrimshire, to continue the closing of the schools in the town for a further period of fourteen days, in consequence of the epidemic of scarlet fever at present prevailing in the place.

DR. BUNSEN, the German chemist, has been elected a Foreign Associate of the Paris Academy of Sciences. The dignity is one of the highest in the scientific world, and is limited to eight names. Dr. Bunsen succeeds the late Professor Wöhler, of Göttingen.

THE problem of profitable sewage farming still awaits solution. The estate agent of Lord Warwick has been compelled to make an application to the Leamington Town Council to reconsider the terms of the contract by which his lordship undertakes the disposal of the town sewage. Notwithstanding every effort to make the farm a financial success, it appears that a considerable loss has attended the last eleven years' operations.

MR. GEO. CARRICK STEET, second medical officer to the General Post Office, has been promoted to be chief medical officer, in the room of the late Dr. Waller Lewis; and Mr. A. H. Wilson, the present assistant, succeeds Mr. Steet as second medical officer. Rumour confirms the intimation we gave some weeks ago as to the probable appointment of a lady practitioner to the medical charge of the *employées* in the Post Office.

IT is stated that only one essay for the Triennial and Jacksonian Prizes of the College has been sent in, showing how little interest members now take in these matters. The competition for these prizes is confined to members of the College.

IT is reported as probable that Mr. Robert Rawlinson, C.B., will, on his retirement after thirty years of public service, receive the honour of knighthood.

PROFESSOR HUXLEY has been appointed the Rede Lecturer at the University of Cambridge for the ensuing year.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, which the Registrar-General estimates will have a population of 8,620,975 persons in the middle of this year, 6561 births and 3598 deaths were registered in the week ending the 7th inst. The annual death-rate in these towns, which had been equal to 27·6 and 24·9 per 1000 in the two preceding weeks, further declined to 21·8 last week. The lowest death-rates in these towns last week were 15·2 in Halifax, 15·9 in Birkenhead, 16·6 in Bradford, and 16·8 in Cardiff. The rates in the other towns ranged upwards to 26·6 in Hull, 27·2 in Manchester, 29·8 in Blackburn, and 30·9 in Liverpool. The deaths referred to the principal zymotic diseases in these towns were 419, showing a decline from recent weekly numbers; they included 94 from whooping-cough, 85 from scarlet fever, 82 from measles, 76 from "fever" (principally enteric), 43 from diarrhœa, 30 from diphtheria, and 11 from small-pox. The lowest zymotic death-rates occurred last week in Brighton and Leicester; and the highest in Preston and Liverpool. Whooping-cough caused the highest death-rates last week in Manchester and Cardiff; measles in Liverpool and Cardiff; scarlet fever in Leeds and Sheffield; and "fever" in Bolton, Liverpool, and Blackburn. The 30 deaths attributed to diphtheria in the twenty-eight towns included 21 in London, 3 in Manchester, and 2 in Portsmouth. Small-pox caused 6 deaths in London, 4 in Newcastle-upon-Tyne, and 2 in Oldham. The number of small-pox patients in the metropolitan asylum hospitals, which had been 73 and 82 on the two preceding Saturdays, was 80 at the end of last week; 17 new cases of small-pox were admitted to these hospitals, against 13 and 12 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 633 and 462 in the two previous weeks, further fell to 384 last week, and were 130 below the corrected weekly average. The causes of 99, or 2·8 per cent., of the deaths registered in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Plymouth, Derby, and Cardiff; whereas the proportions of uncertified deaths were largest in Oldham, Huddersfield, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 32·1, 30·8, and 30·1 per 1000 in the three preceding weeks, further declined to 29·1 in the week ending the 6th inst.; this rate, however, exceeded by 6·3 the mean rate last week in the twenty-eight English towns. The deaths referred to the principal zymotic diseases in these Scotch towns, which had been 119 and 112 in the two previous weeks, rose to 125 last week, and were equal to an annual rate of 5·3 per 1000, which was no less 2·8 above the mean rate from the same diseases in the large English towns. The highest zymotic rates in the Scotch towns last week were 7·0 in Dundee and 7·5 in Glasgow. The fatal cases of whooping-cough in the eight towns, which had been 43 and 35 in the two previous weeks, rose to 55 last week, of which 30 occurred in Glasgow, 13 in Dundee, and 4 in Aberdeen. The 22 deaths referred to diphtheria showed an increase of 7 upon the number in the previous week, and included 13 in Glasgow, 4 in Edinburgh, and 3 in Dundee. The 15 deaths from scarlet fever showed a further decline from recent weekly numbers; 10 were returned in Glasgow and 4 in Edinburgh. The 11 fatal cases of "fever" also showed a decline, and were 10 fewer than those in the previous week; they included 6 in Glasgow, 2 in Edinburgh, and 2 in Aberdeen. All the 10 fatal cases of measles occurred in Glasgow; and of the 13 deaths attributed to diarrhœa, 5 were returned in Glasgow and 4 in Dundee. The deaths referred to acute diseases of the lungs in the eight towns, which had been 228 and 199 in the two preceding weeks, further declined last week to 163, but exceeded by 28 the number from these diseases in the corresponding week of last year. The causes of 116, or nearly 17 per cent., of the deaths registered in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 38·1 and 32·1 per 1000 in the two preceding weeks, further declined to 31·0 in the week ending the 7th inst. During the thirteen weeks of last quarter, the death-rate in the city averaged 26·7, against 21·8 in London and 20·5 in Edinburgh. The 214 deaths in Dublin last week corresponded with the number in the previous week, and included 9 which were referred to whooping-cough, 4 to "fever," and 4 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria. Thus 17 deaths resulted from these principal zymotic diseases, against 19 and 22 in the two preceding weeks; they were equal to an annual rate of 2·5 per 1000, while the rate from the same diseases was 2·4 in London and 2·9 in Edinburgh. The fatal cases of whooping-cough, which had been 6 and 7 in the two previous weeks, further rose to 9 last week. The 4 deaths from "fever," however, showed a considerable decline from recent weekly numbers, and the deaths attributed to diarrhœa were fewer than in either of the two previous weeks. The deaths of infants were more numerous than those in the previous week, whereas those of elderly persons had declined. The causes of 39, or more than 18 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Deputy Surgeon-General J. Irvine, M.D., to have the local rank of Surgeon-General whilst employed as Principal Medical Officer in Egypt; Brigade Surgeon John Henry Beath, M.D., C.B., has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Thomas Hession has been granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon Thomas Cureton Nugent has been permitted to resign his commission. — 2nd Brigade, Welsh Division: Surgeon John Paddon resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to wear the prescribed uniform on his retirement.

BENGAL MEDICAL ESTABLISHMENT. — Brigade Surgeon William Walker, M.D., to be Deputy Surgeon-General; Surgeon-Major Robert Sander Bateson, to be Brigade Surgeon.

MADRAS MEDICAL ESTABLISHMENT. — Surgeon-Major William Henry Morgan to be Brigade Surgeon.

BOMBAY MEDICAL ESTABLISHMENT.—Surgeon-Major Henry Vandyke Carter, M.D., to be Brigade Surgeon.—The Queen has approved of the retirement from the Service of the undermentioned officers: Brigade Surgeon Edward Somerset Cleveland, M.D., of the Madras Army; Brigade Surgeon Hunter Adam, of the Madras Army; Surgeon-Major William John Busteed, M.D., of the Madras Army; Surgeon-Major Walter Fry, of the Madras Army.

RIFLE VOLUNTEERS.—4th Lanarkshire (Glasgow 1st Northern): David Newman, Gent., M.B., to be Acting Surgeon.

ADMIRALTY.—Fleet Surgeon David Wilson, who was placed on the Retired List from December 18th last, has been allowed to assume the rank and title of Deputy Inspector-General of Hospitals and Fleets on the Retired List from the same date.

The following appointments have been made:—Fleet Surgeon Henry Macdonnell, to the *Alexandra*; Fleet Surgeon Henry A. Close, to the *Invincible*, vice Macdonnell; Fleet Surgeon Thomas G. Wilson, to the *Trincomalee*, vice Close; Staff Surgeon William Brown, to the *Cruiser*; Surgeons William F. Spencer and Arthur W. May, to the *Alexandra*; Surgeon James A. Jeans, to the *Coquette*; Surgeon Edgar G. Swan, to the *Monarch*, vice Brown; Surgeon Arthur W. E. B. Barrett, to the *Cygnet*; Surgeon Maurice M. R. Mackenzie, to the *Cambridge*, vice Swan; Surgeon Charles A. Macaulay, M.D., to the *Warrior*, vice Spencer; Surgeon Robert J. M'Cormack, M.D., to the *Achilles*, vice May; Surgeon Charles H. Wheeler, to the *Espoir*; Surgeon Charles E. Geoghegan, to the *Indus*, additional, vice Wheeler; Surgeon Anthony Kidd, to the *Terror*, vice Nash; Surgeon Herbert M. Nash, to the *Dido*, vice Kidd.

THE GOVERNMENT AND THE METROPOLITAN ASYLUMS BOARD.

AT the meeting of the Metropolitan Asylums Board on the 6th inst. Sir E. H. Currie presented the following letter addressed by the chairman of the General Purposes Committee to the Premier:—

"Sir,—The Royal Commission issued on Nov. 16th, 1881, on the advice of the Government, to inquire respecting small-pox and fever hospitals in the metropolis, having on July 21st last presented to Her Majesty an elaborate and exhaustive report, embodying a series of practical recommendations as to what accommodation is desirable and what legislation is needed to enable the Metropolitan Asylums Board to carry out the important and not very agreeable duties imposed upon them by the Legislature, the managers, by a unanimous vote, have directed me very earnestly to ask of you the favour to receive a deputation from the General Purposes Committee of the managers, with a view to their explaining the difficulties which prevent the managers from performing the duties imposed upon them by Parliament, or from carrying out the recommendations of the Commissioners. In support of this application I have been desired to state—

"(*a*) That during the greater part of the twelve years which have elapsed since the constitution of the Metropolitan Asylums Board, under the Metropolitan Poor Act of 1867, the managers have been persistently harassed and impeded, and have incurred heavy costs, on behalf of the ratepayers, in the performance of their duties, by legal proceedings, followed in some instances by injunction, and by threats of proceedings whenever and wherever they have endeavoured to carry out the intentions of the Act by providing hospital accommodation for the infectious sick poor, and that at the present time legal proceedings are being pressed in respect to at least two of the hospitals under their control.

"(*b*) That although the Act under which this Board was constituted clearly defines the duties which the managers are expected to perform, yet it does not afford them any protection against adverse actions at law.

"(*c*) That the great majority of the several metropolitan vestries and district boards of works having failed to provide the necessary accommodation for the treatment of the non-pauper infectious sick, the care of this class, as well as of the pauper class, has practically devolved upon the managers, and the invariable consequence has been that during epidemic periods the accommodation at the managers' disposal has been altogether inadequate.

"(*d*) That recent and urgent representations to the Local Government Board as to the necessity of further and prompt legislation had only resulted in the very unsatisfactory announcement that, while sympathising fully with the difficulties of the position in which the managers found themselves placed, the Local Government Board must at present answer to this, as to similar questions on other subjects, that the Government could not at the present time undertake to state what measures they may be able to bring forward during the next session of Parliament.

"(*e*) The managers are aware of the numerous and pressing demands upon your time, but they nevertheless respectfully submit that in their judgment it is impossible to conceive any questions more pressing, or requiring more immediate consideration, or more likely to be fraught with serious and complicated consequences than those which they desire to have dealt with, questions which affect not only the health and lives of a large portion of the population—namely, the population of the metropolis—but also, indirectly, the lives and health of the community at large."

At the same meeting, on the motion of Sir Edmund Currie, it was agreed that the infectious hospitals of the metropolis should be known by the initials of the postal divisions of the metropolis in place of being known by the name of the localities, so that the names of "Hampstead," "Stockwell," "Fulham," "Homerton," and "Deptford" will be dropped out of the Board's nomenclature of hospitals. This course was adopted to meet the objections of property owners and others.

WILLS AND BEQUESTS.

THE will and two codicils of William Alexander Anderson, M.D., of Wilton Lodge, Hillingdon, near Uxbridge, who died on Oct. 22nd last, were proved on the 14th ult. by Mr. Charles Bettesworth Hellard and Mr. Daniel Ball, the surviving executors, the value of the personal estate exceeding £38,000. The testator leaves to his wife, Mrs. Charlotte Elizabeth Anderson, his residence, with the furniture and effects, an immediate legacy of £200, a further sum of £3000, and £900 per annum for life; and there are some other legacies. The residue of his property is to be held upon trust for his nephews and nieces, the children of his sisters, Mrs. Hellard, Mrs. Barnes, and Mrs. Cantor.

The will and two codicils of Sir James Alderson, M.D., F.R.S., D.C.L., of 17, Berkeley-square, who died on Sept. 13th last, were proved on the 11th ult. by Mr. Vincent Thomas Thompson and Colonel Henry James Alderson, the nephews, the surviving executors, the value of the personal estate amounting to over £15,000. The testator, amongst other legacies, gives the piece of plate, presented to him as a testimonial on his leaving Hull, to his nephew, Colonel H. J. Alderson, to be made a heirloom in his family. As to the residue of his property, he leaves one-third to his said nephew, one-third to the children of his sister, Mrs. Margaret Thompson, and one-third to the children of his brother Christopher Richard Alderson.

The will and two codicils of Samuel Newington, M.R.C.P., of Ticehurst, Sussex, who died on July 3rd last, were proved on the 19th ult. by Mr. Campbell Newington and Mr. Theodore Newington, the sons, Mr. F. W. Aitkins, and the Rev. A. G. P. Humfrey, the acting executors, the value of the personal estate exceeding £10,000. The legatees under the will are the testator's wife and children.

The will of Amerly Allcock, M.R.C.S., of Dudley-road, Smethwick, Staffordshire, who died on Nov. 14th last, was proved on the 4th ult. at the Lichfield District Registry by Mr. Egerton Allcock, the nephew, the surviving executor, the value of the personal estate amounting to £9600. The testator leaves his residence, with the furniture and effects, to his nephew, Egerton Allcock; one-half of the residue of his real and personal estate to his niece, Ann Maude Jennings, and the remaining half to his nephew, Charles Egerton Jennings.

The following legacies have recently been left to hospitals and other medical charities:—Mr. Peter Walker, of Wrexham and Liverpool, brewer, £500 to the Wrexham Infirmary.—Mrs. Eleanor Baily, of Elm House, Ellison-road, Barnes,

£100 to the Royal Infirmary for Women and Children, Waterloo-road.—Mr. John Goldenberg, of Rangoon, Burmah, and of 49, Leichtenstein strasse, Vienna, one half of the residue of such part of his personal property as may by law be bequeathed for charitable purposes, and which is of very considerable amount, upon trust for the London Hospital, Whitechapel-road, the North London or University College Hospital, and St. George's Hospital.—Sir Charles Decimus Crosley, of Sunninghill-park, Berks, £100 each to the Royal Berks Infirmary, the Royal Free Hospital, Grays-inn-road, the Royal Hospital for Incurables, Putney, the London Hospital, and the Charing-cross Hospital, and £50 to the Royal Windsor Infirmary and Dispensary. — Mr. John Chevallier Cobbold, £100 to the East Suffolk Hospital.—The Hon. Charles James Trench, of 82, Merrion-square, Dublin, £500 each to the Hospital for Incurables, Donnybrook, and the Convalescent Home near Stillorgan Station.—The Rev. Augustus Clissold, formerly of Stoke Newington, but late of Broadwater Down, Frant, Sussex, £500 each to the Royal Hospital for Incurables, West-hill, Putney, and the Cancer Hospital, Brompton.—The Rev. Gerald Carew, of Myttonhall, Fitz Salop, on the death of his wife, £1000 to the Taunton and Somerset Hospital.

Correspondence.

"Audi alteram partem."

"PICRIC ACID AND SUGAR TESTING."

To the Editor of THE LANCET.

SIR,—Your correspondent Dr. Pavy, in this matter of sugar testing, has evidently resolved to place himself hopelessly in the wrong. He ignores the elementary principle in practical chemistry that even a slight modification of an experiment may lead to results entirely different and apparently contradictory, and with a light heart he endeavours to refute the conclusions derived from carefully conducted and accurately recorded experiments by a hasty proceeding, undeserving the name of an experiment, unless, indeed, it be an experiment upon the patience and credulity of your readers. The proof of this serious charge against Dr. Pavy as a scientific observer and a controversialist will be mainly found in my son's letter, which you will doubtless publish with this; but I have yet something more to say.

From the fifth paragraph of Dr. Pavy's letter it is evident that he has repeated the experiment of prolonged boiling normal urine with potash described by my son in your impression of December 16th. He has not found that an alkaline sulphide resulted from this experiment, as he anticipated would be the case, though he has not the candour to acknowledge the fact. He says, "whatever might have been the issue of the discussion about the formation of a sulphide, the fact stands that healthy urine gives a certain degree of reaction with the picric acid and potash test, and this independently of the trace of sugar which healthy urine contains, for it is obtainable after boiling the urine with caustic potash, a treatment that leads to the destruction of the sugar." This statement contains that mixture of truth and error which appears to characterise all Dr. Pavy's communications on this subject.

I myself found that when normal urine is long boiled with half its volume of the liquor potassæ of the Pharmacopœia, it assumes a dark-reddish colour; and although after prolonged boiling the sugar must be assumed to have been destroyed, there was a red reaction with picric acid. I further found that the urine which had been thus darkened was entirely decolourised by two or three filterings through animal charcoal, and that it then gave no red colour to the picric acid solution. The absence of the confidently predicted sulphide was further proved by a lead solution causing no black precipitate. I then asked my son to explain the apparent discrepancy between my results and his statement, that after a sufficiently prolonged boiling of normal urine with potash to destroy the sugar there remained nothing which gave a red reaction with picric acid. He gave the explanation which by subsequent experiment I have found to be true. The different results depend on the different strength of the potash solution employed. My son, as he stated in his letter, used a 2 per cent. solution of potash, which is little more than one-third the strength of the liquor potassæ of the Pharmacopœia, and, further, he was careful not to allow the mixed liquids to become concentrated by evaporation during the prolonged boiling. When a weak alkaline solution is employed the sugar is destroyed, and the colouring matter which results from a reaction between the strong caustic alkali and some constituent of the urine is not developed, there is then nothing left which gives the characteristic red picramic acid colour. I scarcely need say that this development of colour by the prolonged boiling of normal urine with a strong alkali has no relationship with the simple process of sugar testing by picric acid and potash, although Dr. Pavy refers to it as if it had. In giving hereafter the full directions for the picric acid sugar test, it will be shown that a brief boiling of urine with picric acid and potash solution, strong enough to give the full picramic acid reaction, develops none of the colour which results from prolonged boiling with a strong alkali.

In fact, so far as our present observations have gone, and they have been neither few nor carelessly conducted, the picric acid test for sugar in urine will prove to be more free from possible fallacy than any other known test for that substance. I have now read Braun's paper in the *Zeitschrift für Chemie* for 1865, and I find that it contains nothing more than the meagre statements quoted by Dr. Pavy. It is surprising that a chemist who had observed the formation of the coloured picramic acid by the reducing action of grape sugar on picric acid should have made no attempt to utilise it as a quantitative test.

In reply to Dr. Pavy's reiterated expression of the danger to be apprehended from the introduction of the picric acid test for diabetes, I have only to say that he appears to have formed a very low estimate of the intelligence and common sense of his professional brethren. I anticipate that henceforth with the aid of a simple and trustworthy test for varying quantities of sugar in the urine it will be much easier than it has hitherto been to make generally known the essential difference between a more or less considerable excess of the normal sugar in the urine, the result, especially in persons at and beyond middle age, of diminished power of digesting starchy and saccharine food, and that much more serious morbid condition to which alone the term diabetes is strictly applicable.

I am, Sir, yours truly,

Savile-row, Jan. 8th, 1883. GEORGE JOHNSON.

To the Editor of THE LANCET.

SIR,—Unlike Dr. Pavy, I find no difficulty in accounting for the "fallacious results" which he attributes to me, but which, with your permission, I will now show to be his own. It has occurred to me more than once to obtain a considerable accession to my knowledge by setting to work *from the point of view of a scientific opponent*, and endeavouring so far as possible to arrange things as he would do, and to bring about the results he would expect. It was, I believe, by following this method of investigation that I have been enabled to arrive at the new and important *fact* that no sulphide is produced when a solution of albumen is boiled with caustic alkali. I think I may venture to assert that if Dr. Pavy had conducted his experiments upon a similar principle he would not have committed the error which has led him to impugn my accuracy.

With the object of allowing every possible chance for the production of an alkaline sulphide by the action of caustic potash upon solution of albumen at the boiling temperature, I boiled the alkaline mixture for "half an hour," as Dr. Pavy has correctly quoted me. The result was that *no trace of sulphide was produced*, as I have already (equally correctly) stated. Dr. Pavy, on the other hand, speaks triumphantly of an abundant production of sulphide observed on adding a solution of lead to one of albumen and potash, which had previously been boiled for "fully five minutes." I have repeated this experiment of Dr. Pavy's, and can corroborate his statement that "it does not signify whether the lead solution be added before or after the boiling," when the ebullition has been continued for so short a time, and when the quantity of albumen present is so large as it was in Dr. Pavy's experiment. Nevertheless, it is a positive fact that the albumen molecule is in some way split up by boiling with caustic potash for a *sufficient length of time*,

one result of the decomposition being that the sulphur of the albumen enters into some combination which is incapable of yielding a sulphide on boiling with a solution of lead or copper.

I have just now boiled a strong solution of white of egg with excess of potash for three-quarters of an hour, testing the alkaline liquid with lead at intervals. Up to half an hour, black sulphide was produced in abundance, but after that a *red colour* was the only effect noticed on the addition of the lead, whilst a drop or two of Fehling's solution produced a fine violet hue. It may be as well to mention that these *colours* are only observed in the case of fresh white of egg and albuminous urine, pure dried ovalbumen treated in the same way producing *no colour or precipitate* at all. I must, therefore, reiterate most emphatically my original statement, that no *sulphide* is produced by boiling together potash and albumen, except in the presence of some metal such as lead or copper.

Moreover, the idea that an alkaline sulphide may be at first formed and afterwards decomposed by prolonged ebullition, is negatived by the fact that if the boiling of albumen and potash be arrested *before* the alkali has had time to react completely upon all the albumen in solution, and the liquid *be then cooled*, no sulphide is precipitated by the addition of lead solution to the cold liquid, but on boiling again in presence of lead blackening is at once observed. The formation of the lead sulphide evidently then results from combination between the lead and the sulphur of albumen, *which is in the act of undergoing decomposition by the boiling alkali;* and, after sufficiently prolonged boiling in the absence of *lead*, which will vary in its duration according to the quantity of albumen present, it becomes impossible to produce a sulphide even on boiling with solution of lead or copper.

I am, Sir, yours truly,

G. STILLINGFLEET JOHNSON.

King's College, January 8th, 1883.

P.S.—Since writing the above, I have found that the importance of the presence of lead in effecting the production of sulphide by combination with the sulphur of albumen may be emphasised by the following experiment: If albumen, water, and a little litharge be boiled together for a few minutes, lead sulphide is produced in abundance, though no potash be present in the liquid. So that not only is no alkaline sulphide formed by boiling albumen with potash, but the presence of potash is not necessary for the production of lead sulphide from the sulphur of albumen.

Jan. 9th, 1883. G. S. J.

"DEATHS AFTER ABDOMINAL OPERATIONS FROM HEART-CLOT."

To the Editor of THE LANCET.

SIR,—Allow me once more to waste your space in correcting some of the misrepresentations contained in Mr. Thornton's last letter. First of all, he tells us that he is glad that his letter has at last induced me to "admit distinctly" that I stick to the antiseptic principle. Mr. Thornton has only found a mare's nest. I have in a way, to the best of my knowledge at the time, been guided by this principle ever since I practised surgery. In my first ovariotomy, above twenty and more years ago, the husband of the patient sat up half the night to see that the water in which the sponges were to be used next day was boiled long enough to destroy all organisms contained in it; and I need not tell here of other precautions taken even in those early days. The carbolic spray has been given up in abdominal operations; but surely Mr. Thornton knows that is not giving up the antiseptic principle. If some have been stupid enough to think so, it was no business of mine to correct them. Then Mr. Thornton supposes that *probably* in my early cases were included those of incomplete operations that recovered. There was only a single case that got well. She died eight years after of something else. The case was not included, but placed by itself; and Mr. Thornton will find it published if he will look for it. Then there were four, perhaps five, fatal cases of incomplete operation—two being cancerous masses not disturbed—that were put amongst the fatal cases, and I have not changed this arrangement. It seemed to me then, as it seems to me now, that the only fair and correct way is to include all deaths following incomplete operations in our statistics, and not to show them aside in a separate list.

In giving my results, all my hospital cases were given—sixty-six—and not merely a "small group of them," as being a better test of any method than those operations done in private, or in a small special hospital. Results in the Samaritan, which is merely a private house with everything that money can command, ought to show far better results than those of any general hospital; yet Mr. Thornton's Samaritan Hospital results of the last two years give, he tells us, a mortality of 6·36 per cent., as against my Edinburgh hospital results without Listerism of 2·5. I do not think that "steady Listerism scores here."

I am now done with Mr. Thornton, and, with Mr. Tait, have to request to be let alone. I must also, with Mr. Tait, express the hope that in future Mr. Thornton will do his bad cases himself, and not allow them to come straggling North.

I am, Sir, yours truly,

Edinburgh, Jan. 6th, 1883. THOMAS KEITH.

To the Editor of THE LANCET.

SIR,—I see in Dr. Heron's letter, published in your last issue, that he is only able to controvert one of the facts stated in my letter of the week before, this one being unfortunately founded on a misapprehension on my part, as I see for the first time on reading Mr. Treves' letter, a copy of which you publish. I am very sorry this should have happened, and beg to apologise to Dr. Heron, and also to assure him that I do not wish to detract in the least from any credit that may attach to him from showing Dr. Ehrlich's process. I remain, Sir, yours faithfully,

Gower-street, Jan. 6th, 1883. HENEAGE GIBBES, M.D.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—Permit me kindly a few lines with reference to the Association of Fellows of the Royal College of Surgeons. No steps were taken to bring the Association under the notice of Fellows until a fortnight ago, when the appeal you mention was circulated, and which over two hundred members have joined. The Association is in no sense an appanage of the British Medical Association. It was necessary to have a meeting once a year of the members. The annual election day at the College naturally suggested itself as a suitable day, but it was thought that if the meeting were held after the election it would clash with the Fellows' dinner, and if before, it would be too late for nominating members for the coming election, and too early for the election following, inasmuch as it would not be known how the election just pending ended. The annual meeting of the British Medical Association seemed to afford an opportunity more generally convenient to the members than any other time. The New Sydenham Society similarly holds its annual meeting during the session of the annual meeting of the British Medical Association.

Permit me to thank you for your remarks in a leader in to-day's issue with regard to proxy voting at the election of members of the Council of the College of Surgeons. If that privilege were conceded, the Fellows would have, and would feel that they had, their due influence on the council of the College, and I think that probably all need for an association of Fellows would be, and would be considered to be, at an end.

I am, Sir, yours faithfully,

Birmingham, Jan. 6th, 1883. T. H. BARTLEET.

To the Editor of THE LANCET.

SIR,—I think that in your leader of to-day there can be no doubt you have rightly estimated the true object of the above Association, and perhaps at the same time the reason for some of the opposition to it. It is the old jealousy between the London and provincial Fellows for seats on the College Council. Personally I have taken no interest in the Association, for it is not the way in which I should like to see the difficulty adjusted. But the London men may take it as a proof that the three or four seats which they seem anxious to wrest back from the provinces had better be left undisturbed, otherwise it seems probable that they will

have to contend with an organised opposition on the part of some provincial association. The formation of such a caucus would be a very unfortunate circumstance; but it must be remembered that it would only have originated in opposition to an overbearing caucus in London—the caucus, in fact, which arranged for Mr. Baker's retirement at the last election, the onus of which they had hoped to place upon the back of another provincial Fellow. Cannot the Council see their way to accept a specific number of representatives from our large provincial schools? or are the London Fellows afraid to run the risk of voting by proxy? If the Council will do nothing to meet the wishes of a majority of the Fellows, why, as you say, "it is only reasonable that they should have facilities for enforcing their will and wishes upon the Council."

I am Sir, yours truly,

Liverpool, Jan. 6th, 1883. FRANK T. PAUL.

To the Editor of THE LANCET.

SIR,—The Fellows of the Royal College of Surgeons have formed an association, for, amongst others, the following purposes:—

1. To enable the body of Fellows to ascertain exactly the views and opinions of those of their number who are nominated for seats in the Council, upon all questions relating to the management and well being of the College. This was very necessary, for some time since, at one of the elections, I asked the then President, Mr. Holden I believe, whether I could before voting put some questions to the candidates, and was told I could not; but that any written communication sent to him would be placed before the Council.

2. To endeavour to alter the law, which now obliges all Fellows to record their votes in person, and to enable them to do so by properly attested papers. This would place all the Fellows on an equality in this respect, many of those living in the provinces being practically disfranchised by the existing regulations. In your remarks upon this subject in THE LANCET of Jan. 6th, you very properly advocate voting by proxy. How can this more speedily be accomplished than by such a combination as that formed at Worcester?

There is no intention, as far as I know, of affiliation with the British Medical Association; but I cannot see any objection to the Fellows taking a spare hour for the discussion of their own affairs at these annual meetings. To some it may save a special journey of several hundred miles to London.

I am, Sir, your obedient servant,

WM. WEBB, F.R.C.S.

Wirksworth, Derbyshire, Jan. 6th, 1883.

"THE SCOTCH UNIVERSITIES AND MEDICAL LEGISLATION."

To the Editor of THE LANCET.

SIR,—The three men who, above all others, are recognised in Scotland and elsewhere as the spokesmen of the universities in political matters, so far as they affect the medical profession, are Professors Gairdner, Struthers, and Turner. They have consistently acted the part of reformers within their several schools, and much of the credit at present falling to the Scottish universities is the natural outcome of their labours. They have largely assisted in the voluntary upbuilding by the universities of that system of medical education which now draws hundreds of students from every part of the world, and at a period when changes are proposed, their voices, if united, will go far to determine Scottish opinion. Though Professor Turner has favoured the introduction of the conjoint board for Scotland, in so far as to require university students to pass a practical examination before such a body, it is only in the spirit of compromise that such a suggestion has been made, and it is quite well known that in the Scottish universities even this arrangement is unpopular. Their system of education and examination is so complete and satisfactory that they do not see why the sins of the corporations, whether of Scotland, England, or Ireland, should be visited upon them, and they wish simply to be left alone, though subject to scrutiny by the General Medical Council. They do not see their way to sacrifice their students at the shrine of a fancied uniformity. But while this is so, there are many Scottish graduates who fear that some change is inevitable, and as such is evidently necessary in many quarters, they look about for a compromise which may conserve the interests of their universities, while approaching as near as possible to the desideratum of southern reformers, the conjoint scheme. There are one or two points in our northern system which many believe to be weaknesses, and it would be well if these could be adjusted while changes are being made. It is generally felt that the professorial staff in each university has a too preponderating share in the conduct of the examinations of their own students; and as a consequence of this men are apt to give too great heed to the peculiarities, and, perhaps, crotchets, of the teachers whom they know will also hold their destiny in their hands. It is true that assessors are appointed, and are often men of eminence in the subject upon which they are selected to examine, but it is also true that they are generally the juniors of the professors, and often the nominees and friends of these gentlemen. Within recent years there has been a want of uniformity in the examinations of the Scottish universities arising from another cause. Among the professors of each school there have been one or more men who have attached an exaggerated, or absurdly small, value to a knowledge of the subjects taught from their own chairs, and hence students have carefully gauged the requirements of the board and shirked the classes where little knowledge was required. At Edinburgh botany was the bugbear of even the best men, at Glasgow no one was plucked in physiology, while in Aberdeen the late professors of botany would almost decline to remit a man who showed a good knowledge of other subjects. As the approaching fight is likely to be a severe one, it is possible that further proposals may be made with a view to a satisfactory settlement, and it is with this purpose that I trouble you by mentioning one which seems to have good in it—good in that it tends to limit the number of degree-granting bodies, and in so far as it would remedy the defects above noted in the university examinations. My suggestion is that a plan which was some years ago proposed for conducting the examination for the M.A. degree should be applied to those for the M.B. It was recommended that a general board, constituted by representatives from the various universities, should conduct all examinations, or at least appoint all examiners, and that one effect of this would be a heightened value to the degree granted after such a test. As the curricula in each of the universities are almost identical, and the fee for the degrees exactly alike, there need scarcely be insuperable difficulty in arranging a scheme which would do justice to the interests of each. It is not my purpose to enter into details, but merely to throw out an honest suggestion at a time when all who are anxious to conserve the higher teaching of our schools, while willing that a thoroughly sufficient minimum should be rendered compulsory, would gladly assist to the utmost of their power.

Would you, in conclusion, allow me to point out the frequent confusion between our universities and corporations evidenced by some of your critics of Scotch qualifications and examinations. While defending our university system as on the whole the best yet devised, we leave the corporations to be defended by their own friends.

I remain, Sir, your obedient servant,

January, 1883. A SCOTCH A.B.

EPIDEMIC OF SORE-THROAT.

To the Editor of THE LANCET.

SIR,—I notice in your last week's issue a reference made to the sore-throat epidemic that has lately prevailed in this neighbourhood, so send you herewith a little fuller information on the point, thinking it might be acceptable. The disease in question is that generally called follicular tonsillitis, and has nothing in common with diphtheria either in its progress or sequelæ. It is ushered in by a general malaise, with shivering, pains in back and limbs, followed by a high temperature and the follicular affections of the tonsils, characteristic of the disease. In the majority of cases, provided the patient has been kept warm, convalescence occurs on or about the fourth day. There is no albuminuria present throughout, nor is it followed by any signs of paralysis, but anæmic debility (more or less) prevails for a short time afterwards. It has been generally and successfully treated by iron. The milk causation theory is, I think, entirely erroneous; I should certainly attribute it to climatic and atmospheric causes. My reasons for so think-

ing would be too long to state in this letter; I might say, however, that a number of the cases occurred simultaneously with the heavy, foggy weather experienced here in the last week of November. The same disease has also prevailed in very many parts of the country to as great, if not greater, extent than here. Indeed, I may say that we are exceptionally fortunate in escaping disease in any epidemic form. Our death-rate will always compare favourably with any part of the kingdom, more especially with towns of equal magnitude. I am, Sir, faithfully yours,

E. M. SHIRTLIFF,
Kingston-on-Thames, Jan. 8th, 1883. Medical Officer of Health.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to say a few words in reply to your remarks with regard to the health of this district? The sore-throat which has been prevailing in this and, I believe, various other parts of the country is the simple inflammation of the tonsils, or, as Niemeyer terms it, catarrhal angina. It has been ushered in with a feeling of cold down the back, intense frontal headache, pains in the limbs, more especially the shoulders, dryness of the throat, and occasionally nausea. The tonsils have appeared more or less swollen and red; then, after about twenty-four hours, have been covered more or less with round or oval, slightly raised, yellowish-looking spots, and sometimes with a cloudy or film-like secretion. There have been, I believe, one or two cases of the true diphtheritic type, with albumen in the urine, but these have been altogether the exception. As a rule, all the cases have been fairly convalescent after having been about forty-eight hours under treatment; but some of the recoveries have been tedious, and some patients have had extension of the inflammation up the Eustachian tube into the tympanum. The temperature has usually been about 102° for the first twenty-four hours, and has then gradually fallen. I believe I am right in saying there has not been a single death arising from it. In some cases it has been associated with influenza and great hoarseness of the voice, and influenza has been generally prevalent. The peculiarities about the present attack have been that it has affected few or no children under about five years of age, but mostly grown-up people and a large proportion of servants, or those living in the basements, which, during the late weather, have been unusually damp. As a rule, only two or three in a house have been attacked. It has been difficult to trace any cause common to all except the unusual prevailing atmospheric conditions—viz., the absence of sunlight, constant rain, sudden and extreme changes of temperature. Niemeyer says: "Sometimes it is epidemic. A large number of persons are taken sick without our knowing the influences inducing the affection." As regards the general health of the neighbourhood, I think I may safely say it is quite as good as that of any of the London suburbs. During a residence of ten years I have not known a single epidemic of any serious character, and although about two years ago there were about fifty cases of diphtheria, the result of an importation into the district, it seems scarcely fair, considering the population, to view these in the light of an epidemic. The treatment which appeared most successful was effervescing citrate with chlorate of potash and boracic acid gargle. I am, Sir, your obedient servant,

F. P. ATKINSON, M.D.
Kingston-on-Thames, January 8th, 1883.

PERMANGANATE OF POTASH PILLS.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Jan. 6th, permanganate of potash pills, containing one or two grains of the salt, are recommended by Drs. Ringer and Murrell for amenorrhœa. Having during the last few days heard of cases of their spontaneous combustion, which it is very probable will occur if the common excipient containing glycerine, now generally used by dispensers, be used to mass them, I wish to point out that any readily oxidised excipient should not be used. Having prepared a quantity of the pills, I found the following basis to answer best:—Vaseline, two parts, paraffin wax, one part; melt, stir till cold, and add kaolin, three parts; mix we". This binds the powdered permanganate together, and with a little dexterity the pills may be rolled out without much difficulty, and dusted over with kaolin. They may be coated with sandarach dissolved in absolute alcohol, and rendered tasteless. Cocoa butter may be used as an excipient, but it in time reduces the permanganate, and it is troublesome to manipulate. In solution a dose of permanganate of potash is very nauseous; in a tasteless pill, which dissolves slowly and yet can be easily disintegrated, it is, besides, more agreeable to the stomach than in solution.—I am, Sir, yours truly,

WM. MARTINDALE.
New Cavendish-street, London, W., Jan. 8th, 1883.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

AN epizootic disease, popularly called "pink eye," has made its reappearance among horses here. We had a visit from this disease about a year ago, so it is not altogether a stranger. The present outbreak, however, appears, according to veterinary authorities, to be of a more deadly nature. It seems to be of the nature of influenza of an adynamic type. The swelling and congestive infiltration of the conjunctivæ will, no doubt, account for its popular appellation. In the county of Durham it has been very rife among colliery horses, especially in the neighbourhood of Bishop Auckland; the deaths among horses are said to be very numerous. It has given some anxiety to those who are horsekeepers in our city, for the affection is said to be highly infectious. Those who have to do with horses are warned to pay special attention to the early removal of litter and the cleansing of stables. Horses should not be purchased just now without a satisfactory account of their antecedents, and the introduction of horses from strange stables should be avoided. In many cases, where the disease assumes the form of putrid fever, early treatment is of great importance, and under all circumstances the owners of horses should be prompt in seeking the assistance of the veterinary surgeon directly they discover anything amiss with their animals.

Sir William Armstrong makes good use of his beautiful park at Jesmond, near this city, in freely lending his banqueting hall there for the use of soirées, &c., for our charitable institutions. He also issues season tickets of admission for families to the park, and hands over the proceeds to our Infirmary; the amount for last year was nearly £100.

Mr. Barnard S. Proctor of our city has circulated the the address which he delivered to our Chemical Society at the commencement of the session. Among much in his address which appeals especially to the chemist and the student of molecular physics there are only a few points which can be said to have any direct bearing upon the medical sciences. The remarks upon the hydration of colloid bodies, their penetrability by water contrasted with the impenetrability of crystalloids by the same element, have some bearing upon the relationship which exists between the living tissues and the readiness with which they may be permeated by these classes of bodies when used as food or medicine. Mr. Proctor, remarking upon the recent endeavour to explain the process of digestion by saying that solution of food in the stomach is principally due to the action of living vibrios, which always abound under these circumstances, quaintly suggests, "What helps the solution in the stomachs of the vibrios?"

I have also been fortunate enough to obtain an early presentation copy of Mr. John Philipson's book "On Harness." It will, no doubt, fall under your notice in due course and under its proper heading; but I may say here that there is much to interest us in Mr. Philipson's book, as medical men having horses, and we are all proud of the addition this beautiful little work has made to our local publications.

At Darlington the other day, what was well described as "a trumped up charge" was brought against the head attendant and two subordinates in Dr. Eastwood's Asylum at Dinsdale. It appeared that a lunatic named Salkeld, who was admitted in a very violent condition on November 5th last, alleged that he was ill-treated on the same evening by the attendants. For the defence it was shown that no more

force was used than was necessary to restrain the patient, who was, moreover, known to be one of the best boxers in the county of Durham—and it contains some good ones. The magistrates, after a patient hearing, dismissed the case. One would have thought that the attendants would have fared "second best."

At Stockton the other day the oft-recurring question of stimulants to workhouse patients cropped up. Exception being taken to the quantity of alcoholic stimulants ordered by the doctor, the usual platitude speeches were delivered by "guardians" on the evils of intemperance; strong pressure was used on the question, but Dr. Trotter asked the guardians to take upon themselves the responsibility of prohibiting the use of all alcoholic stimulants. This they declined, but shirked the whole question by directing the clerk to write and inquire as to the practice of other unions in the matter. All this fuss was over about eighteen gallons of stout and a few bottles of "wine" at 1s. 9d. per bottle. Except for the moral effects—and they are not to be gainsaid—it would not appear that the "wine" at this price would be a great loss to the sick paupers. On the other hand, its allowance could not be a heavy item in the union expenses. Can it be possible, as stated by one of THE LANCET's correspondents this week, that the orders for "coffins" in any quantity are always passed by guardians?

Newcastle-on-Tyne, January, 1883.

GLASGOW.

(From our own Correspondent.)

THE chloroform question at the Royal Infirmary was partially settled at the last meeting of the infirmary directors. It may be recollected that on account of the occurrence of several deaths from chloroform administration in this institution, the directors sought to lay down certain conditions under which alone anæsthetics were to be administered. After much discussion, and some very natural opposition on the part of the surgeons, the final form which these instructions have taken was arrived at in a motion carried, significantly enough, by the bare majority of one, that in future no chloroform be administered by the house-surgeons except in the presence of one of the visiting or dispensing staff, or of the superintendent, an arrangement which no one who knows the infirmary will consider a workable one. There is also a proposal before the directory that the number of visiting surgeons of the Royal Infirmary be increased by one, and that one should be struck from the list of visiting physicians, making six surgeons and four physicians.

The desire often expressed by the Medical Faculty of Anderson's College to move their school westward, seems as far as ever from realisation. The trustees of the College announce that they do not wish to remove the entire establishment from its present central site, and that they had no funds available for the separation of the medical school from the rest of the College, and its removal westward, but that if the Medical Faculty could themselves raise the money (£10000) necessary to enable them to migrate, the managers of the College would wish them "God speed." Considerable light was thrown on the actual position of this school by the remarks of the chairman of managers. He stated that for some time past the medical school had been aided by grants from the general funds of the College, but that in recent years this amount had been taken from the capital funds. These advances were made in the hope that the distinguished position of the medical school would be upheld, and in the further hope that it would become self-supporting. But the directors were sorry to learn that this hope was not likely to be realised owing to the falling off in the number of those attending the classes, the majority at present on the roll being students of former years. Point was given to these remarks by the contrast which the chairman proceeded, perhaps unconsciously, to institute between the medical and the science classes, the latter being shown to be in a position of exceptional prosperity; and it was hinted that the future of the "Andersonian" lay most naturally in the fostering and cultivation of technical education. These statements are instructive, though they furnish a singular commentary on the amazing statistics published—the last prospectus of the Andersonian College.

The Glasgow Sick Children's Hospital is now open for the reception of patients. I have no doubt it will soon be full enough.

On Sunday last died Dr. J. G. Lyon of this city, one of the younger generation of surgeons, and a kindly and upright man. He had a large circle of firm friends in the profession, and had in a high degree the faculty of retaining the affection of those with whom he became intimate. His death was caused by phthisis. It is chiefly as the deviser of very ingenious and admirable axis traction rods for midwifery forceps that he will be remembered by the profession at large.

The death-rate of Glasgow during the last fortnight of December, 1882, was 36·5 per 1000. It is noted that such extraordinary high rates of mortality in Glasgow are not due to epidemic disease but to cold, and that the highest rates arise from the accumulation over us of our smoke in the foggy calm of continuous frost.

SCOTTISH NOTES.

(From our own Correspondent.)

IT is reported that the accident to Mr. J. A. Campbell, M.P., is not likely to result in permanent injury to the sight, and that the local symptoms are in process of satisfactory abatement.

Many circumstantial statements regarding the condition of the population in Lewis and the other western islands of Scotland agree in the anticipation of very great scarcity of food there, if not of actual starvation, during the winter. The crops, more especially oats and potatoes, which together form the chief food of the people, were very deficient last year, and appear now to be almost exhausted, while the precarious occupation of fishing has this year yielded an indifferent result. The chronic state of poverty existing in these islands, bordering on actual want, and the statistics of these holdings resembling so much those of western Ireland, the non-sentimental Scotchman looks to emigration as alone suited to relieve the destitution. Meantime the hungry must be fed, and the cry is very urgent for help.

Besides the important discussion on the influence of the school system on the health of children, there were other matters touched upon at the Educational Congress in Aberdeen last week, which will have interest for many of your readers. As illustrating the varying views held by those who wish for an executive commission the following portion of a speech by one of the members may be quoted:—"In each of the four Scotch universities some special reason, over and above general reasons, existed for the appointment of a Commission, or at least for some Government interference. St. Andrews urgently needed money to supplement her professors' salaries; Glasgow needed to be told to set her house in order, and not to pride herself in numbers without efficiency; Edinburgh to some extent suffers from the same disease; Aberdeen wanted money for new Chairs, especially English and education. All four required more elasticity given to their arts curriculum, their medical classes lessened in number by the dropping from medicine proper of such subjects as Botany, Chemistry, and Comparative Zoology, while the relative representation of students and graduates in the university courts ought to be reversed." This outside criticism of medical matters may be useful, and the weakness in the constitution of our university courts was recently pointed out by THE LANCET.

It appears from the statements of a deputation of Tweedside manufacturers who last week waited upon Lord Rosebery, that the stringency of the riparian proprietors who, in that quarter, endeavoured to prevent the pollution of the stream, is much felt by those upon whom it is exercised, and they are anxious to have the law altered to suit their circumstances. They declare it to be impossible to comply with the conditions of common law which bind them to return the waters of the rivers undiminished in quantity and unimpaired in quality, and claim that when they show that they have employed the best available means for preventing pollution they should be protected by a certificate to that effect. In the course of the discussion an interesting statement was made on the authority of Dr.

Wallace of Glasgow, who found that at the best arranged of these works the apparently purified pollution, looking as clear as crystal, would require 100 times its bulk of water to make it habitable by fish, and admixture with 1000 times its bulk to qualify it for use for "primary purposes." The question has thus reached a crisis, but whatever temporary inconvenience or even loss is imposed upon manufacturers, the purity of these streams, the health and the lives of people on their banks should be respected, and apparently this is the general feeling of the country. Lord Rosebery gave a very guarded reply, only promising to lay the views expressed by the deputation before other members of the Government.

The Dundee authorities seem much perplexed over a report with regard to the filtration of the Moriskie water, received from Dr. Macadam of Edinburgh who, after stating that the water was quite innocuous in its present state, recommended filtering, which will cost £15,000. A strong party in the board are altogether opposed to this expenditure, and ultimately it was agreed to invite Dr. Macadam to a conference on the whole subject. The diphtheria epidemic still continues in Dundee.

The town of Girvan, till now supplied with water entirely from surface wells, and evidently in a very insanitary condition generally, was last week the scene of much rejoicing over the completion of a new water scheme. It will now be necessary to proceed with a complete drainage scheme, when abundant water can be had for flushing purposes. A special providence seems to have guarded Girvan against epidemics, as with its total absence of protecting measures, and its abundant supplies of decaying fish, it was peculiarly liable to such visitation.

Obituary.

ROBERT ELLIOT, M.D. EDIN., F.R.C.P.

DR. ELLIOT, whose death occurred on the last day of 1882, was the last surviving of three sons, all of whom, as well as their father, were members of the medical profession. The subject of the present notice was born in 1812, and studied in Edinburgh University, where, after enlarging his experience at Paris and Heidelberg, he took his M.D. degree. Three years subsequently, in 1839, he commenced practice in Gateshead, and was not long afterwards appointed lecturer on Materia Medica and Hygiene in the Newcastle School of Medicine, a post he occupied with acceptance for eight years. He was also elected an examiner in the University of Durham. Somewhere about the year 1847 Dr. Elliot settled in Carlisle, and quickly established a high reputation as a consulting physician. But it is in connexion with sanitary science that his name will be more especially associated by a circle wider than the limits of the district of which for eighteen years he discharged the duties of medical officer of health. The simple device of ventilating a room without creating draught, by placing a bar of wood beneath the lower window-sash, sprang, we believe, from the fertile brain of Dr. Elliot. The literature of sanitation too was greatly enriched by him, his papers on the "Effects of Trades upon Health," "The Ventilation of Dwellings," "The Purification of Rivers," "The Utilisation of Sewage," and on other kindred subjects, having confessedly contributed largely to the amount of knowledge at present abroad on health questions. Dr. Elliot belonged to the best class of philanthropists, who have the sagacity to perceive that the only efficient way of helping the poor and ignorant is by teaching them to help themselves. To him was chiefly due the establishment of the Working Men's Reading Rooms in Carlisle. This institution was founded at a time when the education of the industrial classes was regarded with less favour than now, and when it was reserved to such far-seeing men as Lord Brougham—who, by the way, took great interest in Dr. Elliot's project—to recognise the advantages resulting from the spread of knowledge amongst the lower strata of society.

After a separate quarter sessions was restored to Carlisle, Dr. Elliot was elected coroner for the city, an office he occupied until a few days before his death, when in consequence of the state of his health he sent in his resignation. He was a Justice of the Peace for the City, and in 1856 filled the office of Mayor. He was elected a Fellow of the Royal College of Physicians of London in 1873, and was senior Physician to the Carlisle Dispensary and to the Fever Hospital. He was also a member of the Council of the University of Edinburgh. It will thus be seen that the gap left by the death of Dr. Elliot is a very wide one, which it will not be easy to fill; whilst his sterling qualities, both social and professional, will long remain in the memories of those who knew him.

RICHARD RUGG, F.R.C.S.

THIS well-known surgeon expired at his residence in Chichester (to which town he had recently retired from Brighton) on the 26th ult., in his seventy-sixth year. At an early age he was apprenticed to his uncle, Mr. Thomas Hodson, of Lewes, one of the most successful lithotomists of his day. On the conclusion of his apprenticeship, Mr. Rugg entered at St. George's Hospital, and in 1829 passed the Hall, immediately after which he was called on to take sole charge of a large practice in Berkshire, whilst the owner was prosecuting his studies in London, for three years. Mr. Rugg subsequently resumed his hospital studies, and was admitted a member of the College of Surgeons, May 10th, 1833, and a Fellow of the same, May 14th, 1868. On passing the College he was appointed to the Brighton Dispensary, a post he held for four years, when, on the establishment of a new parochial infirmary, he was elected surgeon to the institution. After thirty years' service he retired, receiving from the mayor, magistrates, clergy, &c., a handsome piece of plate. When the Charter of Incorporation was granted to Brighton, Mr. Rugg was elected a member of the Town Council, with another member of our profession, the late Sir John Cordy Burrows. This, owing to his large and increasing practice, he subsequently resigned. The deceased gentleman, who was twice married, leaves a widow, five daughters, and two sons, and a large number of friends, to deplore his loss. His remains were interred in his family vault in the Brighton Cemetery on the 2nd inst., followed by many of his old friends and patients.

JAMES ARTHUR WILSON, M.D., F.R.C.P.L.

DR. WILSON, whose death we briefly announced last week, was born in London in 1795. His father was a teacher of anatomy in the school in Great Windmill-street, and was a surgeon of considerable reputation. After four years of pupilage at St. Peter's College, Westminster, the subject of the present notice proceeded to Christ Church, Oxford, in 1812, and in 1823 obtained his M.D. degree, having been elected Radcliffe Travelling Fellow two years previously. He became a Fellow of the Royal College of Physicians in 1825, and was a Member of the Censors' Board in 1828 and 1851. The Harveian Oration delivered by him in 1850 is spoken of in Munk's "Roll of the College of Physicians" as "one of the most original and noteworthy in matter and in style of any that have been spoken within the present century." Dr. Wilson occupied the post of physician to St. George's Hospital from 1829 till 1857, when he resigned and was elected consulting physician. Though a good and ready writer, the works from his pen are not numerous, the chief being one on "Spasms, Languor, Palsy, and other Disorders of the Muscular System," and another on "Erysipelas and Rheumatic Fevers." His contributions to periodical literature were, however, valuable and important, and exerted an influence on the progress of reform in his College which can scarcely be over-estimated.

ROYAL COLLEGE OF SURGEONS.

AT a quarterly meeting of the Council of the College, on the 11th inst., Mr. Christopher Heath was elected a member of the Court of Examiners in the vacancy occasioned by the retirement from that office of Mr. Luther Holden, late President of the College; and Mr. John Wood was elected a member of the Board of Examiners in Dental Surgery.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

Edward R. Wawn, G. A. Holroyd, G. S. Greenwood, T. B. Musgrave, A. Badcock, and J. L. Atkinson, Leeds School of Medicine; G. E. Roach, Birmingham; H. W. Husbands and E. H. Meaden, Bristol; H. Shelmerdine and W. W. B. Fry, Edinburgh; C. R. Battersby, Dublin; J. M. Young, A. Williams, J. Hamilton, and D. M. Nairn, Glasgow; W. M. Fisher, Galway; Herbert Lund, C. D. Ritchie, R. R. Whishaw, W. P. M. Graham, and J. M. Clarke, Cambridge; C. E. Lister, St. George's Hospital and Liverpool; M. P. Holt, King's College; B. T. Reid, St. George's Hospital; F. Edge, J. F. Aspinwall, E. Swindells, T. F. Higgins, and A. F. Keyworth, Owens College, Manchester; J. R. J. Raywood, Guy's Hospital; H. B. W. Plummer, Newcastle-on-Tyne; F. N. Gaudin, University College; H. E. Browne, Cambridge and University College; A. T. Peachey, London Hospital; J. B. Okell, St. Thomas's Hospital; H. E. Brodrick, Liverpool; P. W. Halley, Guy's Hospital; F. J. Warwick, Cambridge; E. Wood, F. Jeffree, and E. B. Sugden, King's College; G. W. Fitz Henry, St. Thomas's Hospital; H. L. Hughes, London Hospital; Umadas Banerjee, Calcutta; D. M. Ellis, St. George's Hospital; S. W. Bryant, Edinburgh and St. Bartholomew's Hospital; C. P. Ruel, University College; F. Corner, London Hospital; C. Coulan, St. Bartholomew's Hospital; Y. M. J. Humphreys, Liverpool and Guy's Hospital.

APOTHECARIES' HALL. — The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 4th:—

Bruce, Robert Marston, Carentan House, Lordship-lane.
Dowsing, Herbert Leopold, Argyle Villa, Hull.
Knapton, George, Wimpole-street, Cavendish-square.

The following gentleman also on the same day passed the Primary Professional Examination:—

Reeks, John, St. Bartholomew's Hospital.

LONGRIDGE, near Preston, is to have a Local Board of Health.

LONGEVITY IN IRELAND. — In a recent report of the registrar at Borrisokane, of fifteen deaths which occurred in the district, eleven had reached the following ages: 104, 101, 86, 80, 78, 75, 72, 68, 60, and 60 years respectively.

THE annual meeting of the Cambridge subscribers to the Hunstanton Convalescent Home was held on Dec. 30th at Cambridge. A satisfactory report was read and adopted, and a resolution carried unanimously to the effect that the Cambridge subscribers welcome the suggestion to hold the annual general meeting at Cambridge.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The fourth meeting of the twenty-seventh session, 1882-83, was held at the Royal Kent Dispensary, Greenwich-road, on January 5th, when Mr. Thomas Moore, F.R.C.S.E. (Exam.), S.Sc.C. Cantab., read a paper on "Disease Germs." Microscopic specimens were exhibited.

AN inquest was held this week on Mr. C. R. Johnstone, resident surgeon at a branch of the Cheltenham Dispensary. It appeared that the deceased was accustomed to employ chloral in large quantities for the relief of the effects of cephalalgia. Death, however, seems to have been due to hydrocyanic acid, taken, no doubt, whilst in a state of mental derangement.

AT a meeting of the Chorlton Board of Guardians on the 5th inst. reference was made to some houses in Park-street which had been condemned by the officer of health as unfit for human habitation. One member said that the houses in question were "not fit for pigsties" and that there was a great necessity for the incorporation of such out-townships as Chorley with Manchester.

MANCHESTER MEDICAL SOCIETY.—The following is the list of office-bearers for 1883, elected at the annual meeting, held at the Owens College on Jan. 10th, 1883:—President: Dr. Leech. Vice-Presidents: Dr. Dreschfeld, Dr. Arthur Gamgee, Mr. Thomas Jones, Dr. James Ross. Treasurer: Dr. David Little. Secretary: Dr. C. J. Cullingworth. Other members of the Committee: J. A. Ball, M.B., James Duncan, M.B., Mr. John Earle, Dr. Glascott, Dr. James Hardie, Dr. John Dixon Mann, Dr. Siegmund Moritz, Dr. Herbert Smith Renshaw, Mr. James Stephens, Mr. Walter Whitehead, Dr. William Yeats. The annual report showed that the number, notwithstanding numerous changes, remained the same as last year, 218. The library now contains 27,298 volumes, of which 1054 have been added during the year 1882.

DR. REILLY, in moving the adoption of the Dispensary Visiting Committee, at the meeting of the Guardians of Mile-end Old Town, said that too much medicine was made up for use in the wards, such medicine not being absolutely necessary. The compounding of all this medicine would account for so much chlorodyne and other opiates being wanted. Dr. Reilly also stated that 210 bottles of medicine were wasted every week.

THE President and Governors of Addenbrooke's Hospital held their Christmas Quarterly Court on New Year's Day at the Hospital. A very satisfactory report was read and adopted. It was stated that the income during the past year had exceeded the expenditure by £165. The average number of beds during the past three years had been 106. The income derived from probationer nurses was £500.

ROYAL INSTITUTION.—Professor W. C. Williamson will begin a course of five lectures on "The Primæval Ancestors of existing Vegetation, and their Bearing on the Doctrine of Evolution," on Tuesday next, Jan. 16th. Prof. Dewar will commence a course of nine lectures on "The Spectroscope and its Applications," on Thursday (Jan. 18th). Mr. R. Bosworth Smith, at the Friday evening meeting (Jan. 19th) will give a discourse on "The Early Life of Lord Lawrence in India"; and will begin a course of four lectures on "Episodes in the Life of Lord Lawrence," on Saturday (Jan. 20th).

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting, January 9th, 1883, the following list of officers and Council was adopted:— President: Mr. J. Shadford Walker. Vice-Presidents: Mr. E. A. Browne, Dr. W. Macfie Campbell, Mr. Rushton Parker, and Dr. H. G. Rawdon. Honorary Treasurer; Dr. J. Barr. Honorary General Secretary: Dr. Frederick Pollard. Honorary Secretary to ordinary meetings: Mr. F. J. Paul. Honorary Librarian: Dr. J. E. Burton. Council: Dr. W. Alexander, Dr. R. S. Archer, Dr. W. Carter, Dr. T. Clarke, Dr. A. Dunbar, Dr. T. R. Glynn, Dr. J. Lambert, Mr. W. McCheane, Mr. J. K. Smith, Dr. S. Spratly, Dr. J. H. Wilson, Dr. A. Wiglesworth.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BUTTERWORTH, S., M.R.C.S., L.R.C.P.Ed., has been appointed Assistant House-Surgeon to the Metropolitan Free Hospital, vice F. R. Anness, M.R.C.S., resigned.

CASEY, EDWARD, M.B., C.M.Aberd., has been appointed Medical Officer for the Sutton District of the Prescot Union.

COTTER, JEREMIAH, M.D., has been appointed Physician to the Cork Fever Hospital.

DE'ATH, ROBERT, M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer of Health for the Borough and Union of Buckingham.

FRANCIS, THOMAS, L.R.C.P.Ed., M.R.C.S., has been reappointed Medical Officer for the Acton Union.

GRAY, FREDERICK ARCHIBALD, L.R.C.P.Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Ottery St. Mary Urban Sanitary District.

HADDEN, W. B., M.D.Lond., M.R.C.P., has been appointed Medical Registrar to St. Thomas's Hospital, vice C. E. Sheppard, M.D., resigned.

JONES, WILLIAM RICHARD PARRY, L.R.C.P.E., L.R.C.S.E., L.S.A.Lond., has been appointed Medical Officer, Medical Officer of Health, and Public Vaccinator for the Llanfair District of the Llanfyllin Union, vice William Watkin Evans, deceased.

KEMP, B., M.R.C.S., L.S.A.Lond., has been appointed Certifying Surgeon to the Horbury Factory District, vice Dr. Wood, of Wakefield, resigned.

LOWE, GEO., M.B., has been appointed Medical Officer and Public Vaccinator for the Fourth District and Workhouse of the Forehoe Union, Norfolk, vice B. R. Boast, L.R.C.P., resigned.

LYNAM, R. G., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to King's College Hospital.

MADDEVER, J. C., M.D., M.S.Glas., has been appointed Medical Officer for the Brownhills District of the Cannock Union.

O'ROURKE, C. T. J., L.K.Q.C.P.I., L.M., L.R.C.S.I., has been appointed Medical Officer and Medical Officer of Health and Public Vaccinator, and Registrar of Births, Deaths, and Marriages to the Crossakiel Dispensary District, County Meath.

RYAN, JOHN, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the First District of the Northleach Union.

RYAN, JOHN N., M.D.Q.U.I., L.R.C.S.Ed., has been appointed Medical Officer for the Weymouth District of the Weymouth Union.

SUTHERLAND, JOHN A., M.B., C.M.Ed., has been appointed Certifying Factory Surgeon under the Factory Acts for the Cleckheaton District, vice Wallace, resigned.

TIZARD, HENRY, M.D. St. And., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Melcombe Regis District of the Weymouth Union.

Births, Marriages, and Deaths.

BIRTHS.

ADAM.—On the 4th inst., at Crichton House, Dumfries, N.B., the wife of James Adam, M.D., Medical Superintendent, Crichton Royal Institution, of a daughter.

CASSAN.—On the 6th inst., at Gainsborough, the wife of T. Cassan, M.R.C.S., L.R.C.P., prematurely, of a son, who survived his birth only a few hours.

FAUGHT.—On the 7th inst., at Clarence House, Southsea, the wife of Brigade-Surgeon Faught, Army Medical Department, of a daughter.

KENDALL.—On the 5th inst., at Renfrew, Bexley-heath, Kent, the wife of Surgeon-General Henry Kendall, M.D., Army Medical Department, of a son.

MOIR.—On the 3rd inst., at Nevis Bank, Fort William, N.B., the wife of W. Brown Moir, M.D., M.B., C.M.Glas., L.R.C.S.Ed., L.M.Ed., of a son.

RING.—On the 5th inst., at Cliftonville, Belfast, Ireland, the wife of Surgeon James Ring, M.D., Army Medical Department, of a daughter.

ROBSON.—On the 31st ult., at South-street, Durham, the wife of E. Shedden Robson, B.A., M.R.C.S., L.R.C.P.Ed., of a daughter.

MARRIAGES.

KIDDLE—PATTERSON.—On the 2nd inst., at the Parish Church, Limpley Stoke, near Bath, by the Rev. Thomas K. Allen, Rector of Freshford, Wilts, Isaac Kiddle, L.R.C.P., L.R.C.S., and L.M.Edin., to Maria, widow of the late Rev. James W. Patterson, of Torquay.

LLOYD—UNDERHILL.—On the 10th inst., at Christ Church, West Bromwich, by the Rev. Percy L. Underhill, M.A., brother of the bride (assisted by the Rev. R. Hodgson, M.A., Vicar of the Parish, and the Rev. Harold J. Underhill, M.A., cousin of the bride), Wilson Lloyd, J.P., F.R.G.S., of Myvod House, Wood Green, Wednesbury, to Margaret Emily, second surviving daughter of Thomas Underhill, M.D., J.P., of Summerfield, West Bromwich.

MACKAY—WHITFORD.—At S. Columb, John Cawfal Mackay, L.R.C.P., &c., to Mary Elizabeth, eldest surviving daughter of the late Thomas Whitford, Solicitor.

MCNAMARA—MERRIMAN.—On the 4th inst., at St. Andrew's Church, Westland-row, Dublin, W. H. McNamara, Surgeon-Major, A.M.D., to Mary Hamilton, daughter of the late M. Merriman, Esq., Barrister-at-law.

DEATHS.

BIRT.—On the 4th inst., at Grove House, Leamington, Thomas Birt, M.D., aged 70.

FOX.—On the 7th inst., Francis Ker Fox, M.D., of Brislington House, near Bristol, aged 79.

FREEMAN.—On the 9th inst., at his residence, Stowmarket, Spencer Freeman, M.R.C.S., in his 79th year.

LYON.—On the 6th inst., at 276, Bath-crescent, Glasgow, James George Lyon, M.A., M.D., aged 43.

MACKEY.—On the 2nd inst., at the Alexander Hospital, Rhyl, N. Wales, Jane Frances, youngest daughter of the late Staff Surgeon Hugh Mackey, formerly Surgeon of the Royal Highlanders (Black Watch).

PRIOR.—On the 4th inst., suddenly, at his residence, Donnington House, St. Albans, R. H. Prior, M.D., L.R.C.P., J.P., aged 37.

SPAULL.—On the 6th inst., at Essex House, Hammersmith-road, after a short illness, Barnard Spaull, F.R.C.S., L.S.A. Lond., aged 80.

VAUDIN.—On the 1st inst., suddenly, at Beaulieu, St. Peter's, Jersey, Charles Vaudin, M.R.C.S., aged 53.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 5.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Jan. 11th, 1883.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 5.30 A.M.
Jan.	5	30·23	W.	45	45	..	50	39	·03	Overcast
,,	6	30·38	N.W.	41	39	..	47	36	·09	Cloudy
,,	7	30·51	S.E.	41	39	..	42	37	..	Hazy
,,	8	30·28	S.E.	36	34	..	43	31	..	Foggy
,,	9	29·82	E.	37	35	..	41	32	·02	Overcast
,,	10	29·61	S.E.	41	40	..	44	32	·02	Overcast
,,	11	29·58	S.E.	42	41	..	43	37	..	Overcast

Medical Diary for the ensuing Week.

Monday, Jan. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Fowler, "On a Case of Intestinal Obstruction treated by Abdominal Section, with Remarks on the Operation."—Dr. Wiltshire, "On Abdominal Pulsation."

Tuesday, Jan. 16.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor W. C. Williamson, "On Primæval Ancestors of Existing Vegetation."

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. The following specimens will be shown:—Epithelioma of the Bladder; Syphilitic Disease of Cerebral Arteries; Syphilitic Capsulitis of the Liver; Spina Bifida in a Child; Keloid after Lupus Scraping (living specimen); Clot from Pulmonary Artery; Cancer of Undescended Testis; Deep Ulceration of Cranium; Rheumatoid Arthritis; Tubercle Bacilli Aneurism of Arch of Aorta; Rickets in a Lizard; Unilateral Anophthalmos (living specimen).

Wednesday, Jan. 17.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, Jan. 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On the Spectroscope and its Applications."

HARVEIAN SOCIETY.—Annual Meeting: Election of Officers; President's Address and Conversazione.

Friday, Jan. 19.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—9 P.M. Mr. R. Bosworth Smith, "On Early Life of Lord Lawrence in India."

Saturday, Jan. 20.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. Bosworth Smith, "On John Lawrence at Delhi and its Neighbourhood."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

CROTON OIL.

THE result of the researches of M. L. Julliard has been published in the *Union Pharmaceutique*. The question which M. Julliard set himself to decide was whether pure croton oil was or was not soluble in alcohol, the account given by different authors concerning its solubility being discordant. It is, however, very generally known that by repeatedly treating croton oil with alcohol, its purgative, acrid, rubefacient, and general active properties are greatly weakened, if not wholly destroyed. According to M. Desnoix, 95 per cent. alcohol will dissolve two-thirds of the oil, but M. Julliard's experiments reversed these figures. *The Dictionary of Adulterations* of Chevallier and Baudrimon states that croton oil is entirely soluble in alcohol at 40°, while the Dublin Pharmacopœia denies it altogether. The differences in the accounts given in various text-books of the solubility of this oil in alcohol may be attributed to the fact that the greater portion of the croton oil used has, by the time it reaches the consumer, been pretty well adulterated with castor or some other oil, the presence of which it is difficult to ascertain with any degree of certainty. Some authors attribute the active properties of croton oil to the presence of resin; others, among whom may be mentioned Pellatier and Guibourt, ascribe them to crotonic acid, while Dublanc absolutely denies the existence of this acid, and Schlippe puts them down to a peculiar principle which he calls crotonal, so that none of the authorities are really agreed as to what is the really active principle of this oil.

G. W.—We doubt whether such fees could be obtained by legal process. The Medical Act provides only for the recovery of "reasonable charges." Fees of the nature of *honoraria* are not recoverable by the process of law. The by-laws of the College of Physicians forbid this. Our correspondent is at liberty to attach any terms he pleases to the giving of his services, but if they are unusual he should intimate the same beforehand. In any action for the recovery of charges for ordinary visiting the usual practice of the neighbourhood would be taken into consideration. We doubt whether the nature of his qualifications would be taken into account. It must be a very eligible neighbourhood for practice where a guinea per visit can be obtained.

THE EXAMINATION IN ARTS AT THE APOTHECARIES' HALL.

To the Editor of THE LANCET.

SIR,—As the time is now drawing near when candidates will be presenting themselves for the above examination, I request that you will allow me to draw the attention of the authorities at the Apothecaries' Hall, through your valuable journal, to a decided grievance that I experienced at the last examination in September. During the whole examination, or nearly so, at a time when one's nerves are strung to their highest pitch, a huge thumping pumping-engine was at work under the very window of the examination room! Its hideous din went through and through one's head, scattering ideas and outrooting steady thoughts. As I believe this engine is a permanent nuisance connected with the railway above, and as I hear that half the candidates failed to qualify in this preliminary examination, I think I have every right to ask, was any allowance made for the pumping-engine? If an appeal to the authorities concerned, set forth in the columns of THE LANCET, is to have no effect, I ask you, to whom, in the interests of myself and fellow candidates in this next examination, I can apply to secure immunity from an unfair and excruciating nuisance?

I am, Sir, your obedient servant,

January 6th, 1883. A CANDIDATE

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

THE first meeting of the Board for the examination of candidates for the diploma of membership of the Royal College of Surgeons in Anatomy and Physiology for the present session was held on the 5th inst., when 196 candidates presented themselves, against 179 in the corresponding period last year. The following were the questions on Anatomy, the candidates being required to answer *four*, and only that number, out of the six questions, between 1 and 3 o'clock:—

1. Describe the fourth ventricle of the brain.
2. The tongue. Describe its attachments, surfaces, muscles, vessels, and nerves.
3. Describe the attachments and relations of the scalenus medius muscle.
4. Describe the articular surfaces of the bones entering into the formation of the elbow-joint.
5. Describe the excretory apparatus of the liver.
6. Describe the dissection required to expose the great sciatic nerve external to the pelvis.

The following were the questions on Physiology, four of which were required to be answered, between 4 and 6 o'clock:—

1. What are the gases of the blood? What is the average percentage of these gases in arterial and venous blood? In what condition do these gases exist in the blood, and how may this be determined.
2. Describe the principal varieties of epithelium, state where they are found, and the functions they discharge.
3. Describe the structure of a lymphatic gland. How is the movement of the lymph maintained?
4. Describe the distribution of the bloodvessels in the kidney. State and explain the effects on renal secretion of increased arterial supply.
5. State the results of complete intracranial section of the fifth pair of nerves.
6. What is the composition of the atmospheric air? What are the changes effected in it by respiration? Give the average amount of oxygen absorbed by a healthy adult in twenty-four hours.

Mr. Herbert H. Meyers.—We think the facts of such cases ought to be reported to the Registrar-General.

"PERMANGANATE OF POTASH IN GONORRHŒA."

To the Editor of THE LANCET.

SIR,—In your last edition one of your correspondents asks for results of the treatment of gonorrhœa by the injection of Condy's fluid. As I have had the opportunity of treating some hundreds of cases by this method, my results may be of some value. I order an injection to be made about twenty times a day with water containing two drachms of Condy's fluid to the half-pint; I enjoin rest in bed, and order a spare diet; and generally administer a saline mixture, with a little hyoscyamus. With this treatment I am able to send nearly all my patients to their duty within a fortnight, and often sooner. I get very few relapses or complications. The injections are nearly pain-less and perfectly harmless, and may be used at any period of the disease. I have frequently succeeded in cutting short an attack of gonorrhœa by the early employment of these injections. There is nothing new or fanciful in this treatment. By keeping the urethra constantly free from discharge, it prevents the spread of the inflammation. It is to my mind infinitely preferable to nauseating patients with copaiba, cubebs, &c., or to using injections of zinc or copper.—I am, Sir, yours, &c.,

Jan. 8th, 1883. SURGEON, A.M.D.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, Dr. Tothill, I may state that, acting on the suggestions of Mr. Arthur Marsack, a student attending the Royal Dispensary, Edinburgh, I have frequently made use of, and with marked success, injections of permanganate of potash in all the stages of gonorrhœa except the very acute. The treatment consists in the administration of the ordinary white mixture to keep the bowels regular, and the use of injections of the permanganate of potash (half a grain to the ounce to commence with). In most cases about a fortnight suffices to arrest the discharge, although it is deemed advisable to continue the injection for a week after the discharge has stopped. I may also state that of course total abstinence from alcoholic drinks is enjoined during the treatment.

I am, Sir, your obedient servant,

H. AUBREY HUSBAND, M.B., &c.,

One of the Medical Officers to the Royal Dispensary, Edinburgh.

Chalmers street, Edinburgh, Jan. 6th, 1883.

"LARGE ASYLUMS FOR THE INSANE."

To the Editor of THE LANCET.

SIR,—Doubtless owing to my careless writing, two mistakes of importance occur in my letter which appears in this week's LANCET under the above heading. At line 14 there should be a — between the words "lessened" and "I," instead of a stop. At line 22, *importance* has been written for *impotence*, thus completely reversing my meaning.

I am, Sir, yours sincerely,

County Asylum, Hayward's-heath, S. W. D. WILLIAMS.

Jan. 8th, 1883.

ASYLUM LIFE IN UTAH.

was not on the face of things likely that the Mormon community would either take especial care of its insane members, or that the polygamic fathers of this selfish sect would fail to abuse the penalties of lunacy for their own purposes; but we scarcely thought matters were as bad as they would seem to be from the following paragraph:—

"A Mormon Madhouse.—A late number of the *Melbourne Argus*, now to hand, contains the following:—Dr. G. A. Tucker, an English gentleman from New South Wales, with letters of introduction to governors of states and territories, asking permission to visit insane asylums and gaols, publishes a letter in the *New York Tribune*, giving a description of his visit to the Utah Insane Asylum, situated three miles east of Salt Lake City. On August the 23rd, accompanied by United States Marshal Ireland and Mr. Neal, of Louisville, Kentucky, father-in-law of Governor Murray, Dr. Tucker visited the Utah Insane Asylum, which is under the charge of Dr. Seymour B. Young, nephew of Brigham Young, and three Mormon commissioners. Dr. Tucker says he found twenty-one patients—nine females and twelve males—in the most filthy condition imaginable. Some were in iron cages outside the main building, while others were in irons, bound hand and foot. Of these patients two were perfectly sane, and have no idea why they are confined. One of these sane persons is a man of the name of Serman, who has been confined for ten years. He was robbed of his wife by a Mormon polygamist, and has been confined in this place ever since. He appears to be a gentleman who has seen better days, and is from the East. This man is in one of the cages in the yard, which he has fitted up in a tasty manner with crude tools of his own make. A daughter of John Taylor was formerly confined in this asylum, but she has been removed to a private house in the city. Her insanity was caused by her father endeavouring to force her into polygamy. The inmates of this institution are punished with a club and a strap. The club is for men, the strap for women. Dr. Tucker closes by saying, 'I have during the last four months visited four asylums in New South Wales, three in Victoria, two in Adelaide, two in Tasmania, three in New Zealand, one in Honolulu, three in California, one in Nevada, and one in Utah, and in no instance have I seen sights so horrible as those of to-day.'"

A Parish Doctor.—1. The power of the medical officer is limited to certifying, in writing, the need for extra nourishment.—2. Yes.—3. We think not.—4. The medical officer is, under the circumstances, to be regarded as the servant of the guardians.—5. Yes.—6. No.

W. G. G. might consult Mr. Bailey-Denton's book on House Sanitation, published by Spon.

A Constant Reader (Kidderminster).—Five shillings per head.

"MANGANESE IN THE TREATMENT OF AMENORRHŒA."

To the Editor of THE LANCET.

SIR,—Drs. Ringer and Murrell, in your issue of the 6th inst., writing on the value of manganese as a cure for amenorrhœa, give the following history as that of a woman in whom the menstrual function was arrested owing to many pregnancies and much suckling, and speak of it as a "typical case" of the class in which manganese is useful.

"A married woman came to us complaining that she was never regular. She had had nine children in as many years, and rarely saw anything more than once between her pregnancies. She had been suckling for eight months, and had not been poorly for seventeen months—the nine months she had carried and the eight months she had suckled. She was not in the family-way, but expected she would be soon if she weaned the baby. . . . She was ordered two one-grain permanganate of potash pills four times a day, and came on poorly in a fortnight."

Do Drs. Ringer and Murrell believe that a woman ought to menstruate during pregnancy? If not, is it strange that their "typical example" had rarely more than one show between her pregnancies, seeing that she had a child every year, and we presume she carried them to term? Again, do they believe that the menstrual function should go on during lactation? If not, their "typical case" was clearly not one of amenorrhœa, and the deductions drawn from all such worse than useless. I should like to know if the woman weaned her child when she began to take the permanganate of potash.

I am, Sir, yours truly,

Sheffield, Jan. 8th, 1883. SCEPTIC.

H. G. Bateman, M.B., will see his question answered in our present number.

Dr. Geo. H. Savage.—In an early number.

"AN OBSCURE CASE."

To the Editor of THE LANCET.

SIR,—I would suggest to your correspondent, "Dum Spiro Spero," that he should examine his patient's boots, as I had a lady very similarly affected who had consulted eminent physicians and surgeons, and for whom I had tried nearly everything I could think of that I considered at all likely to do any good, until one day, upon making my usual visit, I discovered a pair of boots with very high heels placed where the arch of the foot ought to rest, and upon inquiry I found that my patient had been in the habit of wearing such boots. It is needless to add that having once found the cause we soon got rid of the disease.

I am, Sir, yours truly,

January 9th, 1883. F. R. C.

A CONTRIVANCE TO PREVENT "BALLING" OF HORSES' FEET.

THE *Live Stock Journal* gives an account of a contrivance adopted by Col. Anstruther Thompson, of the Fife Hounds, for the protection of horses' feet from snow, from which medical men may take a hint—many of them finding it difficult to get through their work owing to the delay caused by the insecure footing afforded their horses. Col. Thompson takes a sheet of gutta-percha about a quarter of an inch thick, cuts out a set of plates a little larger than the hoof inside the shoe, softens them in hot water, and moulds them inside the shoe over the frog, so that a face of gutta-percha touches the ice and snow, and "balling" with snow is impossible. These plates remain until the end of the bad weather.

LADY MEDICAL STUDENTS IN CANADA.

AT Kingston, in Canada, there are mixed medical classes, and recently the ladies took offence at a remark made by the Professor of Physiology, and left the theatre in a body. Thereupon the male students petitioned the faculty to dismiss the ladies, and even went so far as to threaten to leave the school themselves if their request were not complied with. A compromise was agreed upon: the ladies now attending classes will be permitted to finish their course, but no more will be allowed to enter, and for the future the medical school will be for men only.

Mr. Barker (Sandown).—In Lumley's "Medical Officers' Manual" it is distinctly stated that an overseer can give an order "only in cases of sudden *and* urgent necessity, and the medical officer is required to attend upon the overseer's order only in such cases."

Senex.—Our correspondent, if he is prepared to verify his statements, should make them to the Registrar of the General Medical Council and the Registrar of the College whose licence is being falsely used.

Abstainer.—The effect of the use of the beverage is usually to lay on fat.

Nicotiana.—Tobacco has the reputation of being an anaphrodisiac.

Mr. C. C. Coetz.—1. Certainly not.—2. Yes.

THE FLESH OF DISEASED ANIMALS AS HUMAN FOOD.

To the Editor of THE LANCET.

SIR,—I should like to call your attention to a state of things which is very common in this part of the country. When a cow, bullock, sheep, or pig is taken ill, and seems to be moribund, it is killed at once; or, if it dies before its throat can be cut, is in many cases bled as well as possible, dressed, and "sent to London," frequently realising a price which precludes the possibility of the carcase being used for other purposes than human food. To give a case in point. About three weeks ago in my county a cow was affected with what is here known as "splenic apoplexy." She was not allowed to die, but was killed and "sent to London," where, being in good condition, she made £18. Two dogs lapped some of the blood; one of these died quickly, the other barely recovered. Two colts sniffed the blood while crossing the yard where she had been killed; they died very quickly. A man who cut the animal's throat, leaving some blood on his arm and shirt-sleeve, died in a few days of erysipelas and blood-poisoning. I believe that the gentleman to whom the cow belonged was assured by the veterinary surgeon that the flesh would be innocuous. That may be matter of opinion. I do not know whether there is any law against disposing of the carcases of animals which have died or have been killed while suffering from disease, but it is horrible to contemplate how many people may have found their death in their Christmas dinner from the single case I have instanced.

I remain, Sir, yours, &c.,

January 6th, 1883. A COUNTRY DOCTOR.

A Country Surgeon will best consult his dignity and that of the profession by taking no further notice of so shabby a piece of conduct.

Ignotus.—The only eligible course is to hire lodgings, and to place the patient under the care of a medical man.

G. R.—Our correspondent has omitted to enclose address for replies.

Mr. Ellison (Leeds) should apply to a publisher of medical books.

C. J. H. E.—We do not prescribe.

"THE UNDERGROUND RAILWAY."

To the Editor of THE LANCET.

SIR,—Will you allow me to thank "Inquirens," who is unknown to me, for directing attention to the foul condition of the air in the underground tunnels. I am quite prepared, at a small cost per train, to render the air respirable and agreeable, and thus to put many hundred per cent. more in the shareholders' pockets than they expend in the "Lung." There are so many ways of adapting the "Lung" to the requirements of each case, that no difficulty would be found in selecting a form suitable for the Underground Railway, or for any building or room where perfectly pure air, carbonic oxide excepted, is desired. Mr. Dick Radclyffe, of 128, High Holborn, will soon be in a position to supply the "Punkah Lung" on hire or sale, many wishing to try the scheme.

I am, Sir, yours, &c.,

RICHARD NEALE, M.D. Lond.

Boundary-road, South Hampstead, N.W.,
Jan. 5th, 1883.

CHLORAL HYDRATE.

IN an annotation on "Choral Poisoning" in our last issue, it was inadvertently stated that the law did not recognise the above drug as a poison. As a matter of fact, however, chloral was, on the recommendation of the Pharmaceutical Society, scheduled as a poison in December, 1877.

Mr. Priestley.—We have no information as to the efficiency of so-called disinfection by private firms. Fumigation of such articles as beds is, owing to the necessary absence of thorough penetration, as a rule most untrustworthy.

"HAMAMELIS VIRGINICA."

To the Editor of THE LANCET.

SIR,—In THE LANCET, Dec. 30th, we notice a letter under the above heading, in which occur some remarks which are likely to mislead. The writer stated that "although he is not familiar with the name hazeline, he presumes that the article bearing that name is an imitation of a certain preparation which is advertised to the public in the form of a patent medicine."

In drawing such an inference the writer is in error. Hazeline is not an imitation of any article, nor is it sold as a patent or secret remedy, the composition and mode of preparation having always been made known, and it has been placed before the profession solely upon its own merits. Generally speaking, Hazeline may be said to bear the same relation to witch hazel that the drug known as ergotin does to ergot of rye. From ergot no single principle has been isolated which represents the full value of ergot, but the preparation known as ergotin, when properly prepared from selected fresh grains, possesses all the valuable properties of the ergot in the most reliable form.

Although the bark of witch hazel has been the subject of exhaustive chemical research, no alkaloid, glucoside, or other single representative principle has been isolated. To the best of our knowledge the best product, and the one which most truly represents all the properties and activity of witch hazel, is a concentrated distillate prepared by an improved process from the fresh green bark in such a manner as to avoid the destruction of the active principles, and such a preparation is hazeline, which we describe as "the active principles distilled from the bark of witch hazel (hamamelis virginica, Linn)."

Dr. Symes, in his very interesting communication on the subject, probably through an oversight, used the word "principle" instead of "principles." Such a slip is easy to occur—in fact, it has occurred in printing some of the labels—but we think that the word principles appears in all published descriptions of the drug.

The value of witch hazel is largely due to one or more volatile principles, very easily decomposed by exposure, or driven off in the process of drying the bark. However, certain astringent properties do remain in the dried bark, and we have known good results to follow the administration of fluid extracts and tinctures prepared from it; but, by comparative tests made by eminent members of the profession in both hospital and private practice, hazeline (which possesses the volatile principles above referred to) has given much more favourable results than preparations from the dried bark. Again, hazeline is much more acceptable to patients when administered internally, and very much more cleanly for external application.

In conclusion, we need only refer to the numerous reports from members of the profession which have appeared in THE LANCET from time to time, proving its great value in the treatment of hæmorrhoids, hæmorrhages, varicoses, &c., and to the opinion expressed by THE LANCET. We shall have pleasure in supplying, free of charge, trial specimens of hazeline upon request to members of the profession for tests in either private or hospital practice.

We are, Sir, yours very respectfully,

BURROUGHS, WELLCOME, & Co.

Snow-hill, London, E.C., Jan. 2nd, 1883.

OUT-DOOR RELIEF.

WE have received several letters on this subject, but have not space for their appearance this week.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Joseph Fayrer, London; Dr. Embleton, Newcastle-on-Tyne; Mr. W. Eassie, London; Mr. J. W. Beck, London; Dr. George Oliver, Harrogate; Dr. Bristowe, London; Mr. Cooper, Northampton; Dr. W. J. Morton, New York; Dr. Neale, London; Mr. Paul, Liverpool; Mr. Bartleet, Birmingham; Mr. E. R. Williams, Derby; Dr. M'Vail, Kilmarnock; Mr. Aubrey Husband, Edinburgh; Dr. Wilkins, Montreal; Dr. Lloyd, London; Mr. Robert Rae, London; Dr. Guillemard, Yokohama; Mr. A. S. C. Burton; Dr. S. West, London; Mr. Heckscher, London; Messrs. Fraser and Co., London; Mr. Shirtliff, Kingston-on-Thames; Mr. F. Thorne, Leamington; Mr. Priestley, Battersea; Dr. Atkinson, Kingston-on-Thames; Mr. C. Morton, Liverpool; Mr. Noble Smith, London; Dr. Keith, Edinburgh; Mr. Webb, Wirksworth; Dr. Sansom, London; Mr. Makuna, London; Mr. Newnham, London; Mr. King, Lancaster; Dr. Shipsey, London; Dr. Hawksley, London; Mr. Flint, Westgate-on-Sea; Mr. Hawkins Ambler, Lepton; Dr. G. Holmes, London; Mr. J. Startin, London; Messrs. Protheroe and Morris, London; Mr. Hyslop, Church Stretton; Messrs. Carswell, Edinburgh; Mr. Iliffe, Coventry; Mr. Bayley, Margate; Messrs. Mitchell and Co., Aberdeen; Mrs. Ogston, Newcastle; Dr. Robert Barnes, London; Mr. Hatton, Hartshill; Dr. Hall, Brighton; Dr. Robinson, Buxton; Dr. Fergusson, Teynham; Dr. Bateman, London; Mr. J. W. Smith, Midlothian; Mr. Phippen, Baltimore; Dr. Smith, Hornsey; Dr. Moir, Fort William; Mr. Mackenzie, Burnley; Mr. Macock, Leamington; Mr. Elliott, Carlisle; Mr. Dompiene, Constantinople; Mr. Stilliard, Birmingham; Dr. McVean, Brichlyvie; Messrs. Johnson and Co., Croydon; Messrs. Smith and Son, Birmingham; Mr. Major, Wakefield; Dr. Bristowe, London; Mr. Freer, Birmingham; Dr. Southey, London; Herr F. Engel, Wiesbaden; Messrs. Brown, Barnes, and Bell; Dr. Macphesson, Glasgow; Mr. W. Berry, Wigan; Dr. Silk, Leeds; A. Z.; Sceptic; R. T.; Nicotiana; An Eastern County Doctor; Surgeon, A.M.D.; T. F., Oldham; J. J. L, Skipton; E. L.; A Parish Surgeon; W. D. S. C.; Hypatia; J. G.; Barrister-at-Law; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Kiddle, Maldon; Mr. Caulwell, Shotts; Mr. Redwood, Rhymney; Mr. White, Bayswater; Mr. Powell, Newcastle Emlyn; Dr. Watson, Manchester; Mr. Mulligan, Batley; Mr. Quennell, Glasgow; Mr. Walker, Birkenhead; Mr. Stocker, Forest-gate; Mr. Williams, Derby; Mr. Hunter, Abington; Mr. Tooth, Croydon; Mr. Hills, London; Mr. Watkins, Worcester; Dr. Ingles, Edinburgh; Dr. Smith, Hornsey; Mr. Benoit, Mill-hill; Mr. Johnston, Dundee; Mr. Strahan, Bury-wood; Mr. Pentland, Edinburgh; Mr. Tanner, Wimborne; Mr. Saunders, Wolverhampton; Messrs. Vesey and Co., Bath; Messrs. Johnson and Co., Southport; Mr. Gallop, Street; Dr. McNab, Stirling; Mr. Gibbons, London; Mr. Bigg, London; Dr. Skelton, Bristol; Miss Mackey, Colchester; Mr. Barron, Ulceby; Mr. Johnson, Sparkbrook; J. H. L.; A. D. P.; Patients; E. M. M., Croydon; Clifton, Holloway; Zeta, Commercial-road; L.R.C.P., Halifax; M.D.; M.D., Keilfield; J. R. T., Leicester; Surgeon, Newton Abbot; M.B., Dublin; Lex, Halifax; Medicus, Brighton; M. W., Manchester; Alpha, Birmingham; D. G., London; Principal, Seaford; Surgeon; Emphysema; Dispensary, Nottingham; Medicus, Worthing; G. R.; Medicus, Brighton; Z. B.; W. H. C.; W. K., Hansfield; Patros, London; Simpson, Wigan; Y., Brighton; Celsus; Sussex; &c. &c.

Richmond and Twickenham Times, Hereford Times, Cork Constitution, Temperance Record, Manchester Courier, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 67, Rue Caumartin, Paris.